City of Lewiston
Finance Department

Allen Ward
Purchasing Agent

November 1, 2017

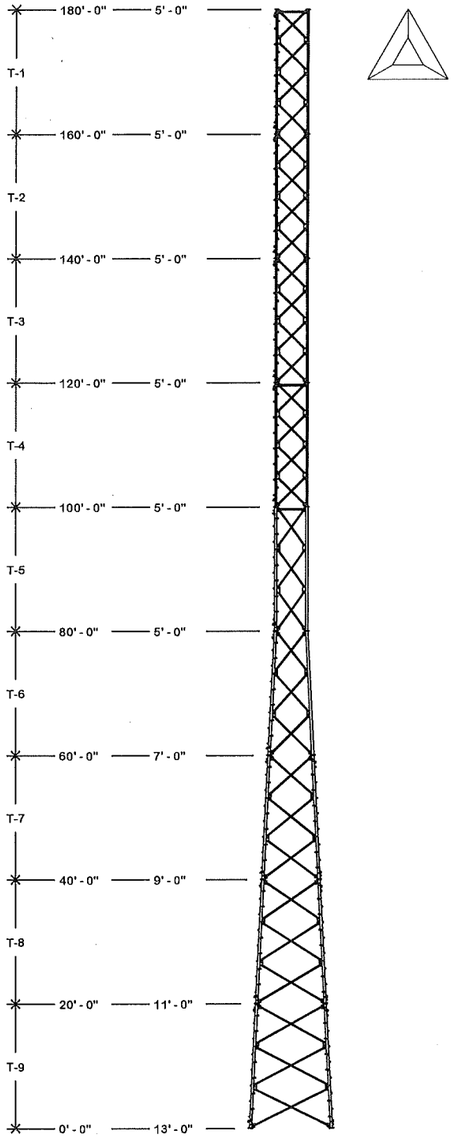
LA 911 Communication Towers
Bid No. LA 2017-004
Bid Due Date: November 14, 2017

ADDENDUM NO. 1

This Addendum #1 hereby makes the following changes to the Bid Documents:

Valmont drawing Eng. File Number 360163 was incorrect and there was also a set of drawings missing. Both corrected drawings are attached.

Dated: November 1, 2017
Allen Ward
Purchasing Agent



SEE PAGE 2 FOR
APPURTENANCES

BUILDING_CODE(S):2009 International Building Code

Design Standard: TIA-222-G

TOWER DESIGN CRITERIA
Basic Wind Speed: 92 mph (no ice)
40 mph(1.00" ice)
60 mph (deflection only)
Structure Class: II
Exposure: B
Topographic Category: 1
Crest Height: 0 ft.

MATERIAL STRENGTHS

Solid Rod	A36	(rod dia. <3/4")
	A572 Gr.50	(3/4" thru 1" dia.)
	A572 Gr.50	(>1" dia.)
Pipe	A500 Gr.B	(antenna pipes)
	A572 Gr.B/C	(tower legs min. Fy 50 ksi)
Angle	A36 Gr.36	
Plate	A572 Gr.50	
Bolts	A-325/A-449	(leg & angle)

Anchor Bolts: F1554 grade 105 or A687

Finish: Tower & Hardware are hotdip galvanized

1. ALL STRUCTURAL HARDWARE IS GALVANIZED IN ACCORDANCE WITH ASTM A-153 (HDG). TOWER SECTIONS & ASSOCIATED STRUCTURAL COMPONENTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A-123 (HDG).
2. ALL BOLTS & NUTS MUST BE IN PLACE BEFORE ADJOINING SECTION(S) ARE INSTALLED.
3. ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC & RCSC SPECIFICATION FOR STRUCTURAL JOINTS UNLESS NOTED OTHERWISE.
4. ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATION. 5/16" MINIMUM WELD SIZE UNLESS NOTED OTHERWISE.
5. MATERIAL LABELED AS ASTM A-572 GR. 58 OR 58 KSI YIELD STRENGTH ALSO CONFORMS TO ASTM A-572 GR. 50.
6. ANALYSIS PERFORMED USING STEEL GRADES LISTED UNDER MATERIALS STRENGTHS SHOWN ON THIS PAGE.
7. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, SEQUENCES AND PROCEDURES.

TOWER COLUMN

SECTION	ELEVATION	FACE WIDTH	PANELS	LEG SIZE	LEG STYLE	LEG BOLT QTY & DIA	DIAGONAL BRACING SIZE	HORIZONAL BRACING SIZE	BRACING BOLT QTY & DIA	SECTION WEIGHT
T1	160' - 180'	5.0'	4	2.50"	V	4 x 3/4"	1/8" x 2" x 2"	3/16" x 2" x 2"	1 x 3/4 "	932.41
T2	140' - 160'	5.0'	4	2.50"	V	4 x 3/4"	1/8" x 2" x 2"		1 x 3/4 "	900.52
T3	120' - 140'	5.0'	4	2.50"	V	4 x 3/4"	1/8" x 2" x 2"		1 x 3/4 "	900.52
T4	100' - 120'	5.0'	4	3.00"	V	4 x 3/4"	1/8" x 2" x 2"	3/16" x 2" x 2"	1 x 3/4 "	1038.53
T5	80' - 100'	5.0'	3	4.00"	V	6 x 3/4"	1/8" x 2" x 2"	3/16" x 2" x 2"	1 x 3/4 "	1200.90
T6	60' - 80'	7.0'	3	5.00"	V	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4 "	1602.68
T7	40' - 60'	9.0'	3	5.00"	V	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4 "	1729.74
T8	20' - 40'	11.0'	3	5.00"	V	8 x 3/4"	3/16" x 2" x 2"		1 x 3/4 "	1803.84
T9	0' - 20'	13.0'	3	5.00"	V	8 x 3/4"	3/16" x 2-1/2" x 2-1/2"		1 x 3/4 "	2026.56

Reactions - No Ice

AXIAL
15.3 K

SHEAR 16.5 K

MOMENT 1517.5 kip-ft

MAX. CORNER REACTIONS AT BASE:
DOWN: 139.9 K
UPLIFT: -125.4 K
SHEAR: 11.1 K

TORQUE 5.2 kip-ft
REACTIONS 92.0 mph WIND (no ice)

Reactions - Ice

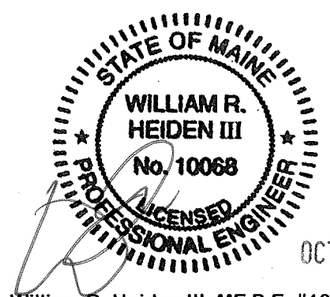
AXIAL
63.8 K

SHEAR 4.0 K

MOMENT 442.3 kip-ft

MAX. CORNER REACTIONS AT BASE:
DOWN: 139.9 K
UPLIFT: -125.4 K
SHEAR: 11.1 K

TORQUE 1.5 kip-ft
REACTIONS 40.0 mph WIND (1.00" ice)



OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
Tower View Page 1

STRUCTURE APPROVAL
SKK 10/3/2017

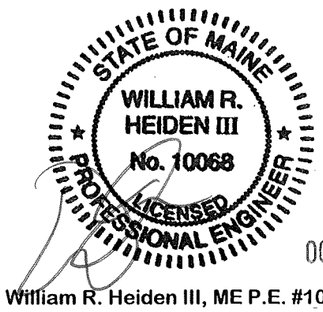
FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
385823

DWG. NO.
276601T

DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	180.0000'
(1) 24" STANDOFF	180.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	180.0000'
(1) 882-70	180.0000'
(1) WHIP (3" X 20')	180.0000'
(3) 6' PIVOT SIDE ARM (50" PIPE)	150.0000'
(1) COL53-160	150.0000'
(2) WHIP (3" X 20')	150.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	120.0000'
(1) COL53-160	120.0000'
(1) PAR6-59 W/ RADOME ()(0 DEG AZIMUTH)	120.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	100.0000'
(1) COL53-160	100.0000'
(1) PAR6-59 W/ RADOME ()(0 DEG AZIMUTH)	100.0000'
(1) 201-7N	80.0000'
(1) 3' PIVOT SIDE ARM (50" PIPE)	80.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	80.0000'
(1) COL53-160	80.0000'
(1) P3F-52-NXA W/RADOME ()(0 DEG AZIMUTH)	80.0000'
(1) 2" X 96" SCH. 40	50.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	50.0000'
(1) COL53-160	50.0000'
(1) PAR6-59 W/ RADOME ()(120 DEG AZIMUTH)	50.0000'
(1) 24" STANDOFF	40.0000'
(1) COMPROD 295-70 YAGI	40.0000'
(1) P3F-52-NXA W/RADOME ()(0 DEG AZIMUTH)	40.0000'
(1) 24" STANDOFF	30.0000'
(1) COMPROD 295-70 YAGI	30.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	20.0000'
(1) ANT150F2	20.0000'



OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE

AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION

Tower View Page 2

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

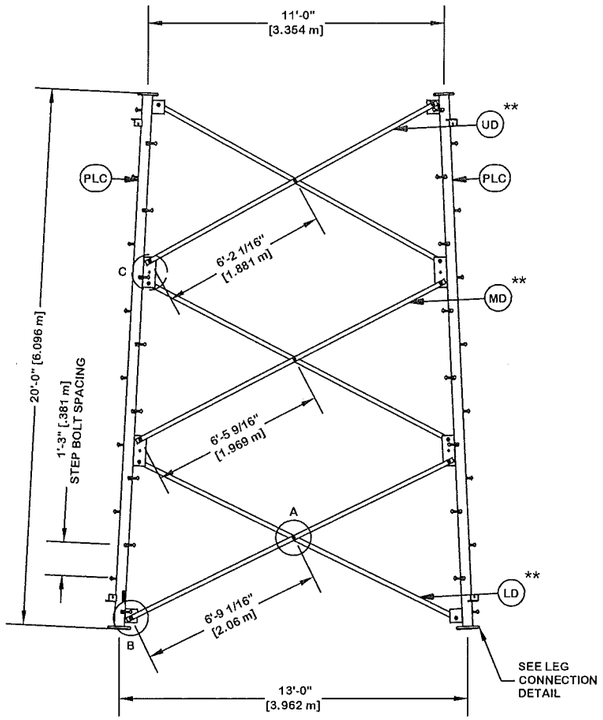
ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

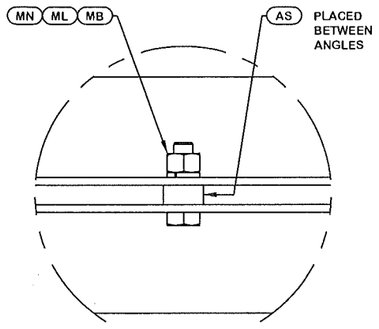
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP, ⌐ ↑
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

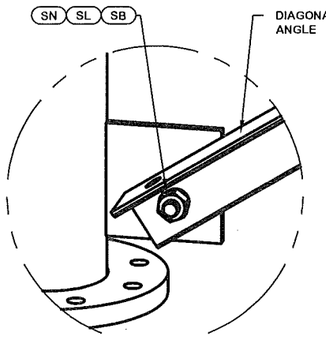


PARTS LIST

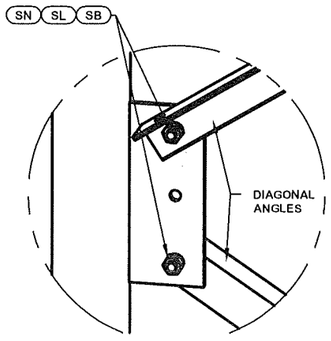
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	231349	ANGLE V-13 LOW 160 1/16"(W/45 CLIPPED)	43.000	258.000
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK	0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
MD	6	226209	ANGLE V-13 MID 152 15/16"	41.080	246.480
UD	6	227341	ANGLE V-13 UP 145 15/16"	39.200	235.200
NOT SHOWN	6	227517	GROUNDING PLATE FOR V-SERIES TOWER	1.930	11.580
			Total Wt	2026.56 lb [920.08 kg]	



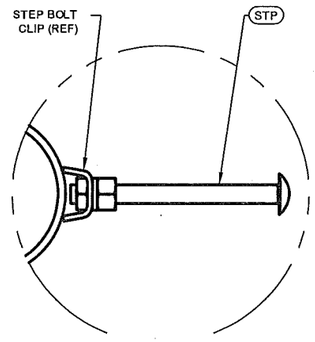
DETAIL A
ANGLE INTERSECTION CONNECTION



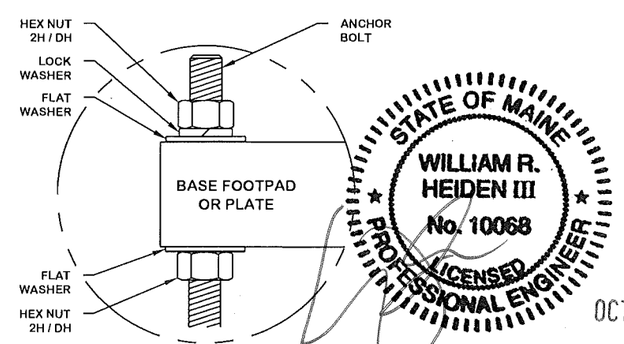
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



ANCHOR BOLT ASSY. (TYP)
SEE FOUNDATION DRAWING FOR DETAILS

STATE OF MAINE
WILLIAM R.
HEIDEN III
No. 10068
LICENSED
PROFESSIONAL ENGINEER

OCT 05 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-13.0 (0' - 20' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

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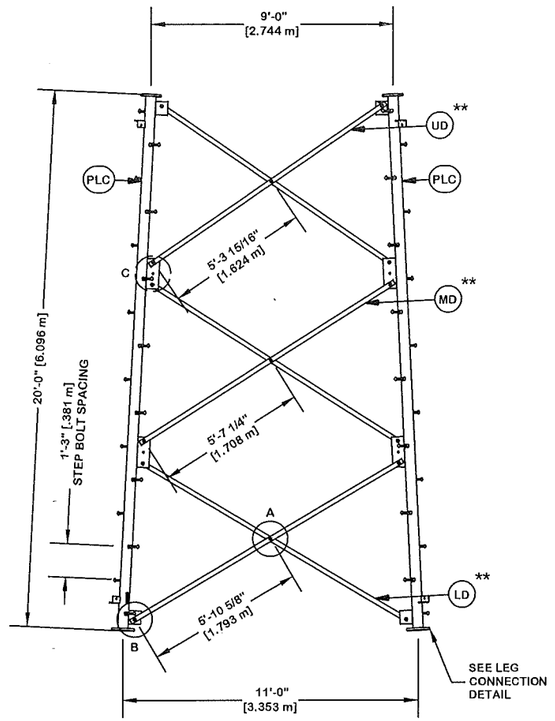
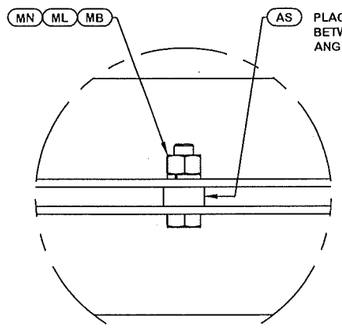
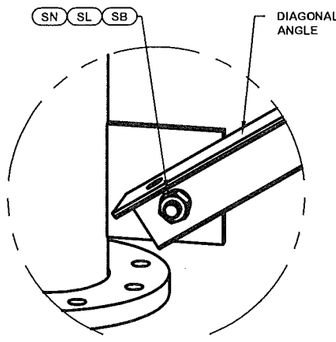


PARTS LIST

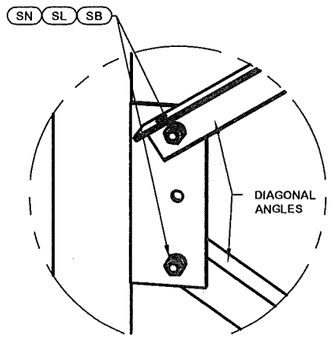
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	231346	ANGLE V-11 LOW 139 1/32" (W/45 CLIPPED)	29.680	178.080
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK	0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
MD	6	226203	ANGLE V-11 MID 132 1/4"	28.230	169.380
UD	6	226204	ANGLE V-11 UP 125 5/8"	26.820	160.920
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	4.560
			Total Wt	1803.84 lb [818.96 kg]	



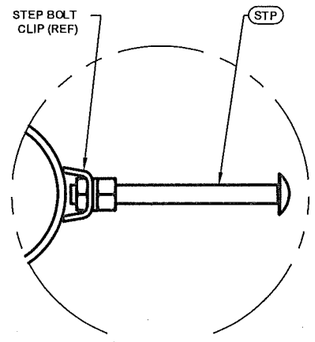
DETAIL A
ANGLE INTERSECTION CONNECTION



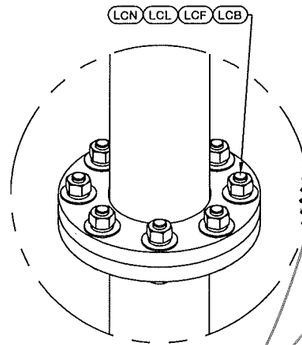
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

STATE OF MAINE
WILLIAM R.
HEIDEN III
No. 10068
LICENSED
PROFESSIONAL ENGINEER

OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
	REVISION HISTORY			

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-11.0 (20' - 40' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
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DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
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THIS MAY BE ON THE OPPOSITE SIDE OF THE
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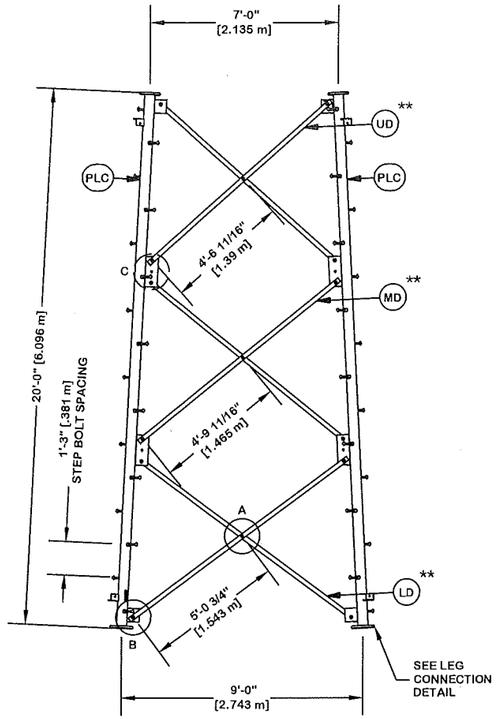
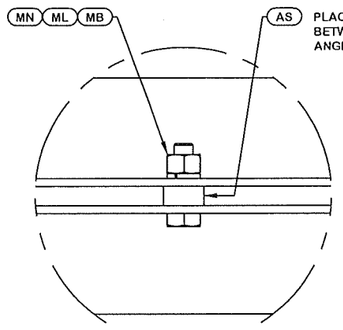
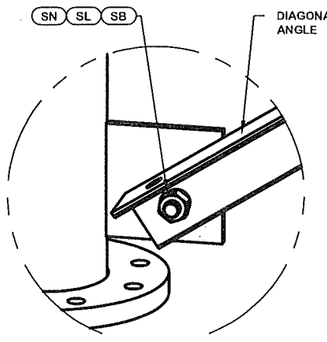


PARTS LIST

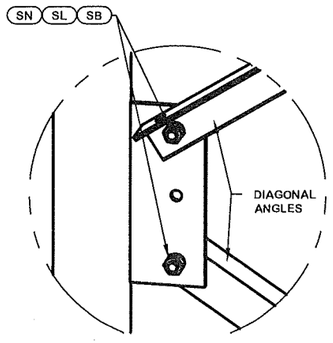
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	3	226192	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	396.130	1188.390
STP	48	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	52.800
LD	6	231344	ANGLE V-9 LOW 119 5/32" (W/45 CLIPPED)	25.440	152.640
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK	0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
MD	6	226195	ANGLE V-9 MID 112 29/32"	24.110	144.660
UD	6	226196	ANGLE V-9 UP 106 29/32"	22.830	136.980
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	1.920
LCL	24	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	4.560
			Total Wt	1729.74 lb [785.32 kg]	



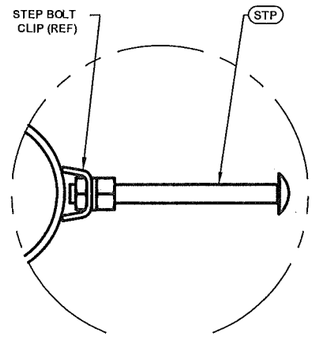
DETAIL A
ANGLE INTERSECTION CONNECTION



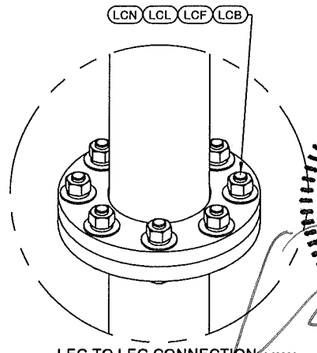
DETAIL B
END SIDE PLATE ANGLE CONNECTION



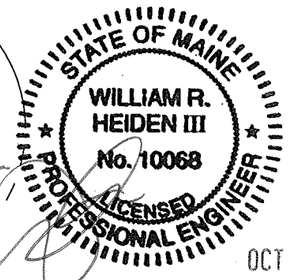
DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-9.0 (40' - 60' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

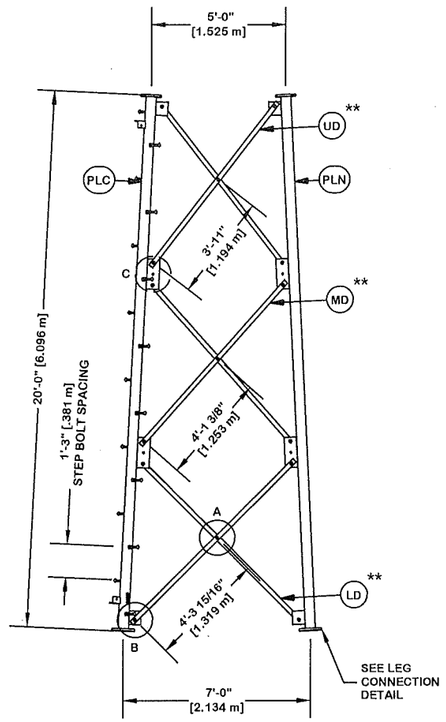
ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

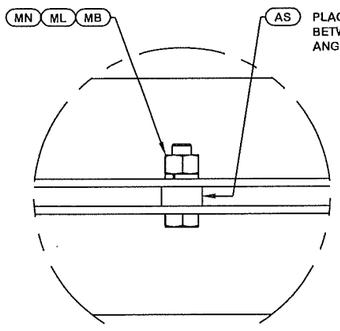
ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP, ⌐ ↑
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.

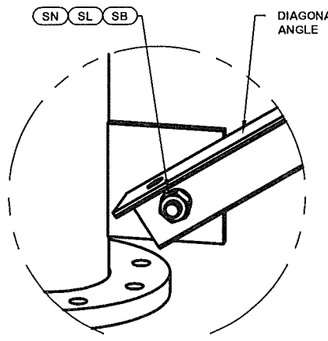


PARTS LIST

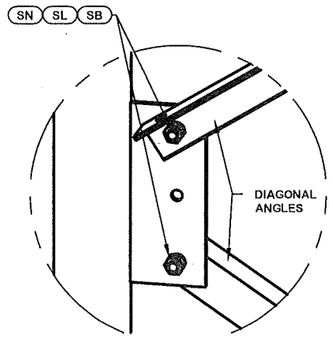
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	1	226200	PIPE LEG SECTION 20'-0" (CLIMBING) 5" SCH. 40 V-SE	389.610	389.610
PLN	2	226201	PIPE LEG SECTION 20'-0" (NON-CLIMBING) 5" SCH. 40	386.250	772.500
STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
LD	6	231342	ANGLE V-7 LOW 101 3/16" (W/45 CLIPPED)	21.600	129.600
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
AS	9	124838	MID-DIAGONAL SPACER 11/16" HOLE 3/8" THICK	0.450	4.050
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
MD	6	226189	ANGLE V-7 MID 95 13/16"	20.460	122.760
UD	6	226190	ANGLE V-7 UP 90 27/32"	19.390	116.340
LCB	24	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	12.960
LCF	24	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	1.920
LCL	24	312163	3/4" GALVANIZED LOCKWASHER	0.030	0.720
LCN	24	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	4.560
			Total Wt	1602.68 lb [727.63 kg]	



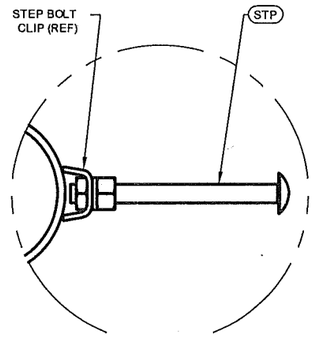
DETAIL A
ANGLE INTERSECTION CONNECTION



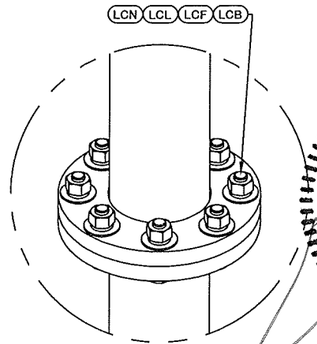
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)

STATE OF MAINE
WILLIAM R.
HEIDEN III
No. 10068
LICENSED
PROFESSIONAL ENGINEER

OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-7.0 (60' - 80' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

ORIENT ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

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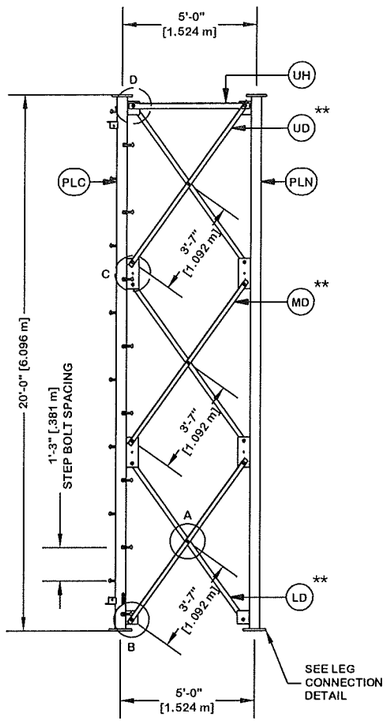
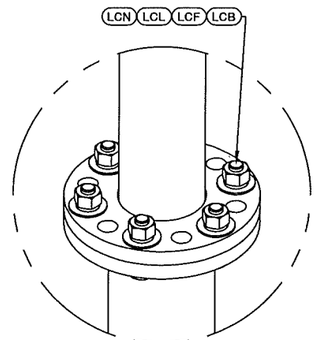
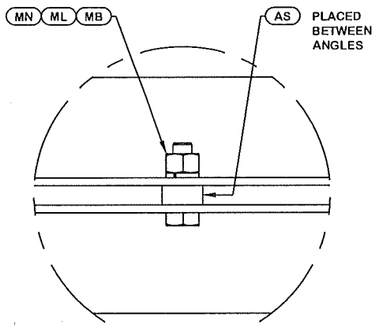


PARTS LIST

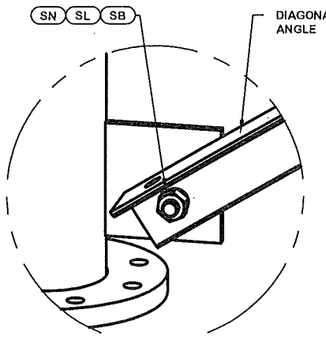
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	1	226184	PIPE LEG SECTION 20'-0" (CLIMBING) 4" SCH. 40 V-SE	302.080	302.080
PLN	2	226185	PIPE LEG SECTION 20'-0" (NON-CLIMBING) 4" SCH. 40	284.670	569.340
STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
UD, MD, AND LD	18	227078	ANGLE V-5 STR 89 17/32"	12.920	232.560
ML	9	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.180
AS	9	116467	SPACER 1/4" THICK 11/16" DIA HOLE	0.250	2.250
MB	9	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	5.760
MN	9	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.080
SL	36	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.080
SN	36	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	6.840
SB	36	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	15.120
UH	3	227584	UPPER HORIZONTAL BRACE ANGLE FOR V-SERIES TOWER (2	10.630	31.890
LCB	18	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	9.720
LCF	18	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	1.440
LCL	18	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.540
LCN	18	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	3.420
			Total Wt	1200.90 lb [545.22 kg]	



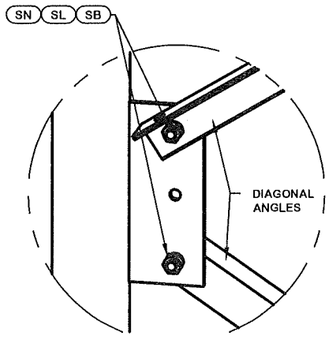
LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



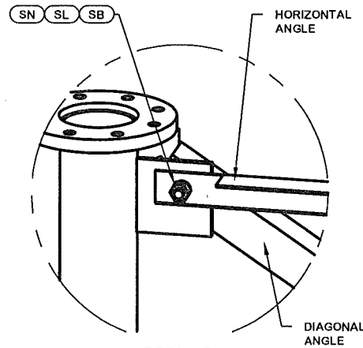
DETAIL A
ANGLE INTERSECTION CONNECTION



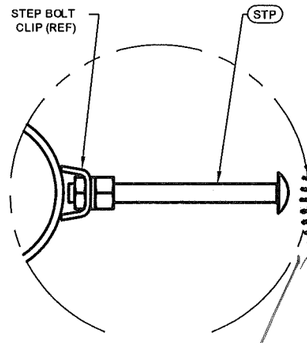
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



DETAIL D
UPPER HORIZONTAL ANGLE CONNECTION



STEP BOLT INSTALLATION

STATE OF MAINE
WILLIAM R. HEIDEN III
No. 10068
LICENSED PROFESSIONAL ENGINEER

OCT 05 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-5.0 (80' - 100' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

INSTALL ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

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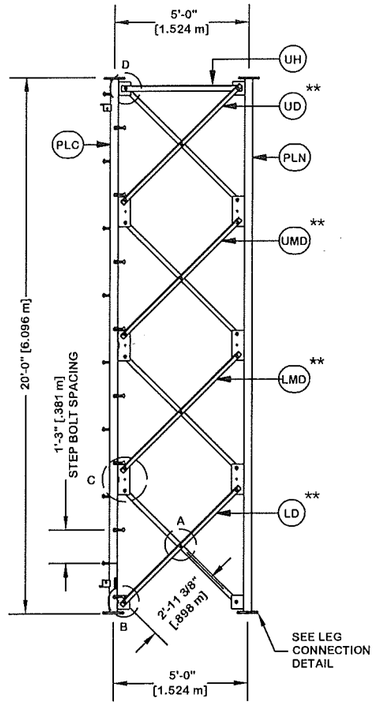
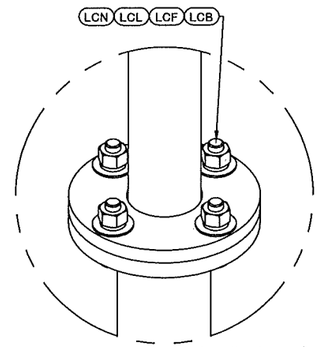
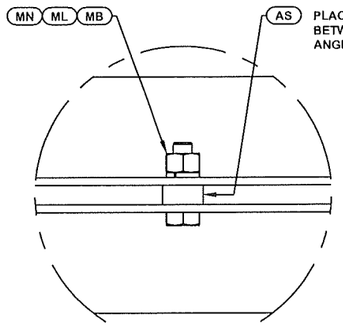


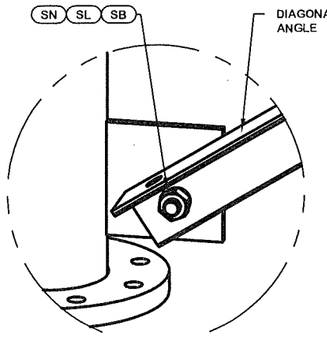
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	1	226769	PIPE LEG SECTION 20'-0" (CLIMBING) 3" SCH. 40 V-SE	228.520	228.520
PLN	2	226770	PIPE LEG SECTION 20'-0" (NON-CLIMBING) 3" SCH. 40	225.160	450.320
STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
UD, UMD, LMD, AND LD	24	227077	ANGLE V-5 STR 74 7/32" - 2" X 2" X 1/8" ANGLE (A36	10.710	257.040
ML	12	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.240
AS	12	116467	SPACER 1/4" THICK 11/16" DIA HOLE	0.250	3.000
MB	12	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	7.680
MN	12	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.440
SL	48	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.440
SN	48	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	9.120
SB	48	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	20.160
UH	3	227584	UPPER HORIZONTAL BRACE ANGLE FOR V-SERIES TOWER (2	10.630	31.890
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	2.280
			Total Wt	1038.53 lb [471.50 kg]	



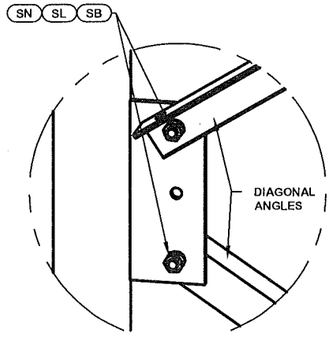
LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



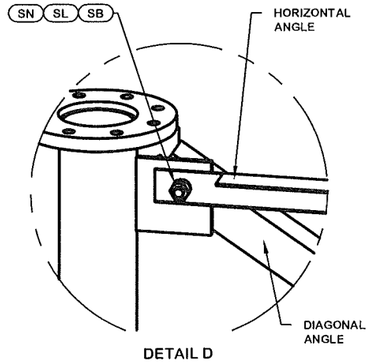
DETAIL A
ANGLE INTERSECTION CONNECTION



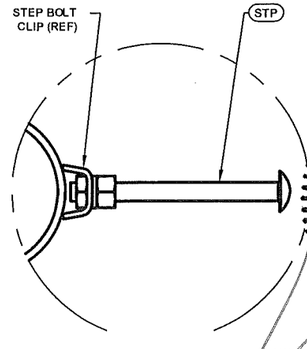
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



DETAIL D
UPPER HORIZONTAL ANGLE CONNECTION



STEP BOLT INSTALLATION

STATE OF MAINE
WILLIAM R.
HEIDEN III
No. 10068
LICENSED
PROFESSIONAL ENGINEER

OCT 05 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-5.0 (100' - 120' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

INSTALL ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

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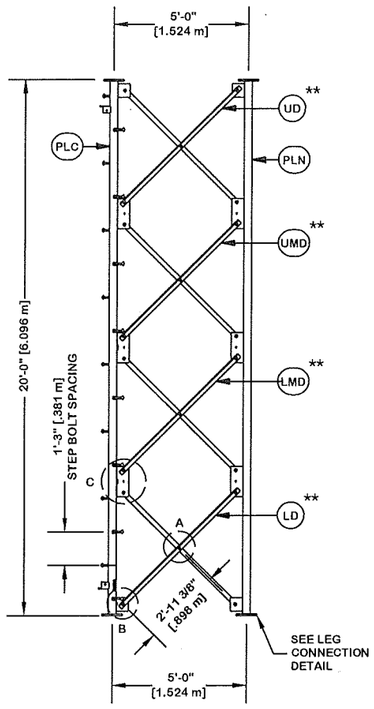
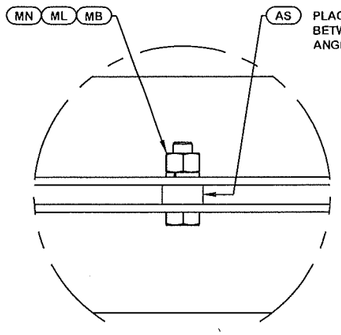
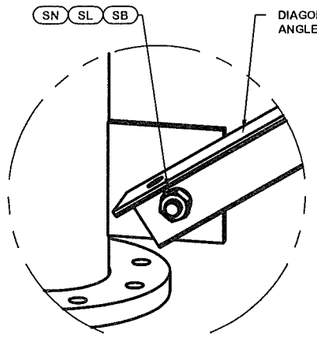


PARTS LIST

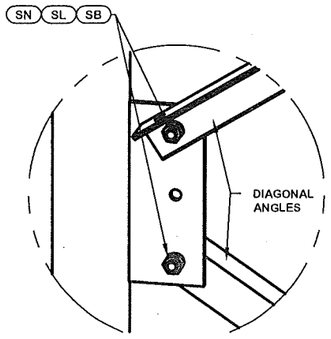
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	1	226160	PIPE LEG SECTION 20'-0" (CLIMBING) 2 1/2" SCH. 40	194.380	194.380
PLN	2	226161	PIPE LEG SECTION 20'-0" (NON-CLIMBING) 2 1/2" SCH.	189.170	378.340
STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
UD, UMD, LMD, AND LD	24	227077	ANGLE V-5 STR 74 7/32" - 2" X 2" X 1/8" ANGLE (A36	10.710	257.040
ML	12	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.240
AS	12	116467	SPACER 1/4" THICK 11/16" DIA HOLE	0.250	3.000
MB	12	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	7.680
MN	12	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.440
SL	48	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.440
SN	48	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	9.120
SB	48	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	20.160
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	2.280
			Total Wt	900.52 lb [408.84 kg]	



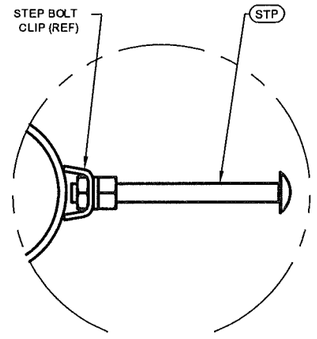
DETAIL A
ANGLE INTERSECTION CONNECTION



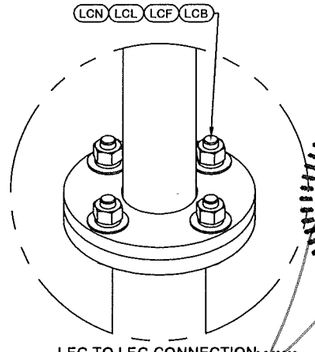
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
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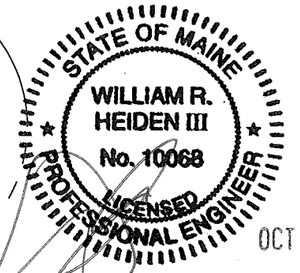

OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE

REVISION HISTORY

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-5.0 (120' - 140' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

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276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

INSTALL ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
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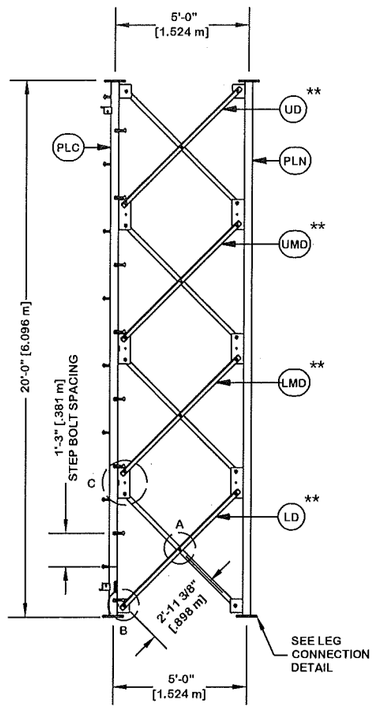
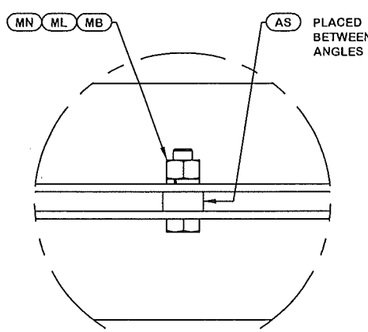
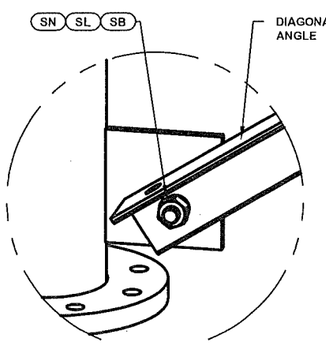


PARTS LIST

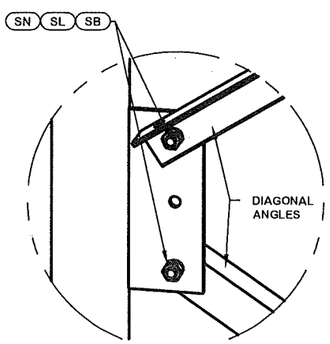
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
PLC	1	226160	PIPE LEG SECTION 20'-0" (CLIMBING) 2 1/2" SCH. 40	194.380	194.380
PLN	2	226161	PIPE LEG SECTION 20'-0" (NON-CLIMBING) 2 1/2" SCH.	189.170	378.340
STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
UD, UMD, LMD, AND LD	24	227077	ANGLE V-5 STR 74 7/32" - 2" X 2" X 1/8" ANGLE (A36	10.710	257.040
ML	12	312123	5/8" GALVANIZED LOCKWASHER (53-22230)	0.020	0.240
AS	12	116467	SPACER 1/4" THICK 11/16" DIA HOLE	0.250	3.000
MB	12	227580	5/8"-11 X 2-1/4" A325T HOT DIPPED GALV. BOLT (FULL	0.640	7.680
MN	12	312501	5/8"-11 HOT DIPPED GALVANIZED NUT	0.120	1.440
SL	48	312153	3/4" GALVANIZED LOCKWASHER	0.030	1.440
SN	48	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	9.120
SB	48	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	20.160
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	2.280
			Total Wt	900.52 lb [408.84 kg]	



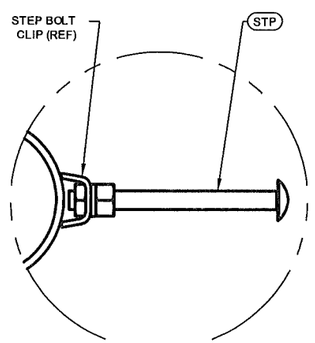
DETAIL A
ANGLE INTERSECTION CONNECTION



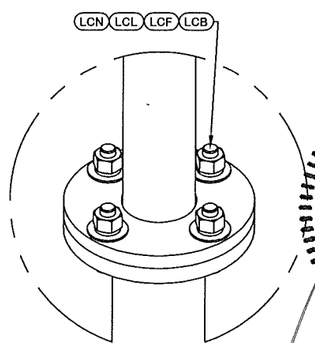
DETAIL B
END SIDE PLATE ANGLE CONNECTION



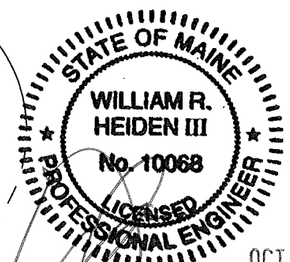
DETAIL C
MID SIDE PLATE ANGLE CONNECTION



STEP BOLT INSTALLATION



LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



OCT 0 5 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-5.0 (140' - 160' ELEVATION)

STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

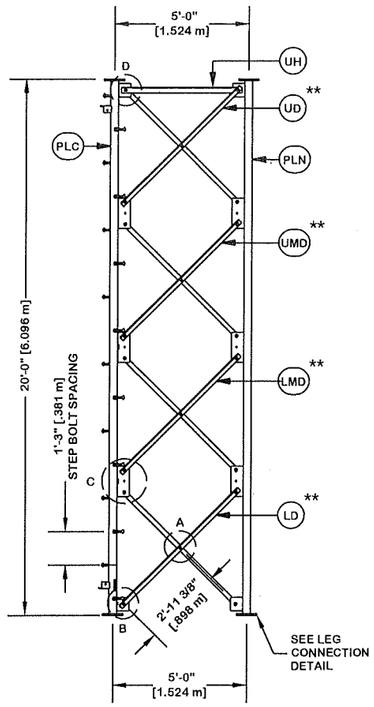
ENG. FILE NO.
385823

DWG. NO.
276601T

ORIENT LEGS WITH P/N STAMP
TOWARD BOTTOM OF SECTION

INSTALL ANGLES WITH STAMPED
END TOWARD TOP OF SECTION

** DIAGONAL ANGLES MUST BE INSTALLED
WITH THE NON-BOLTED FACE UP,
THIS MAY BE ON THE OPPOSITE SIDE OF THE
SIDE PLATE THAN WHAT IS SHOWN IN THE DETAIL.



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ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
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STP	16	228189	STEP BOLT ASSY 5/8"-11 X 7" W/ LOCK WASHER HEAVY	1.100	17.600
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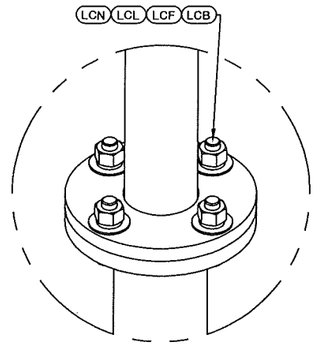
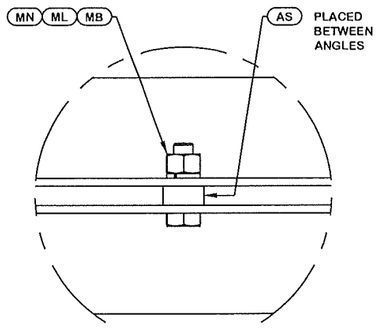
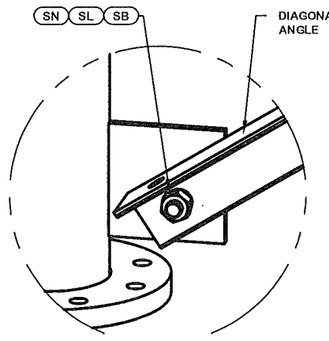
SN	48	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	9.120
SB	48	227579	3/4"-10 X 2-1/4" A-325T BOLT WITH FULL THREAD	0.420	20.160
UH	3	227584	UPPER HORIZONTAL BRACE ANGLE FOR V-SERIES TOWER (2	10.630	31.890
LCB	12	227668	3/4"-10 X 3-1/2" A-325T BOLT WITH FULL THREAD	0.540	6.480
LCF	12	312152	3/4" GALVANIZED FLAT WASHER (F436)	0.080	0.960
LCL	12	312153	3/4" GALVANIZED LOCKWASHER	0.030	0.360
LCN	12	312502	3/4"-10 HOT DIPPED GALVANIZED NUT	0.190	2.280
			Total Wt	932.41 lb [423.32kg]	



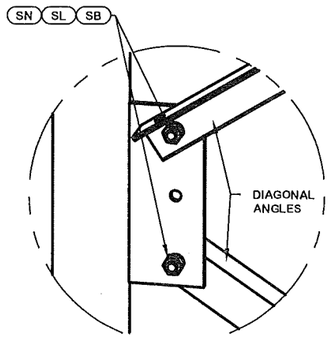
LEG TO LEG CONNECTION
(SIDE PLATES NOT SHOWN FOR CLARITY)



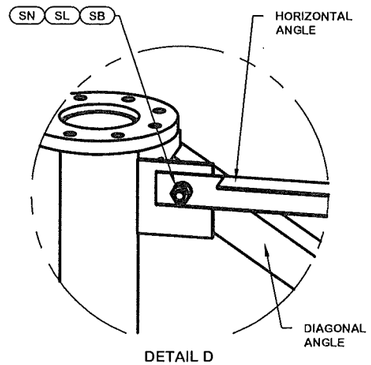
DETAIL A
ANGLE INTERSECTION CONNECTION



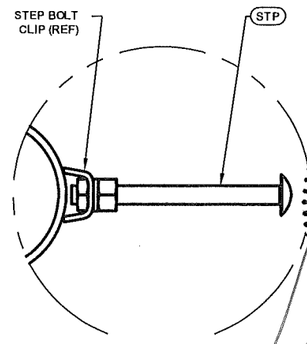
DETAIL B
END SIDE PLATE ANGLE CONNECTION



DETAIL C
MID SIDE PLATE ANGLE CONNECTION



DETAIL D
UPPER HORIZONTAL ANGLE CONNECTION



STEP BOLT INSTALLATION

STATE OF MAINE
WILLIAM R.
HEIDEN III
No. 10068
LICENSED
PROFESSIONAL ENGINEER

OCT 05 2017

William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SECTION V-5.0 (160' - 180' ELEVATION)

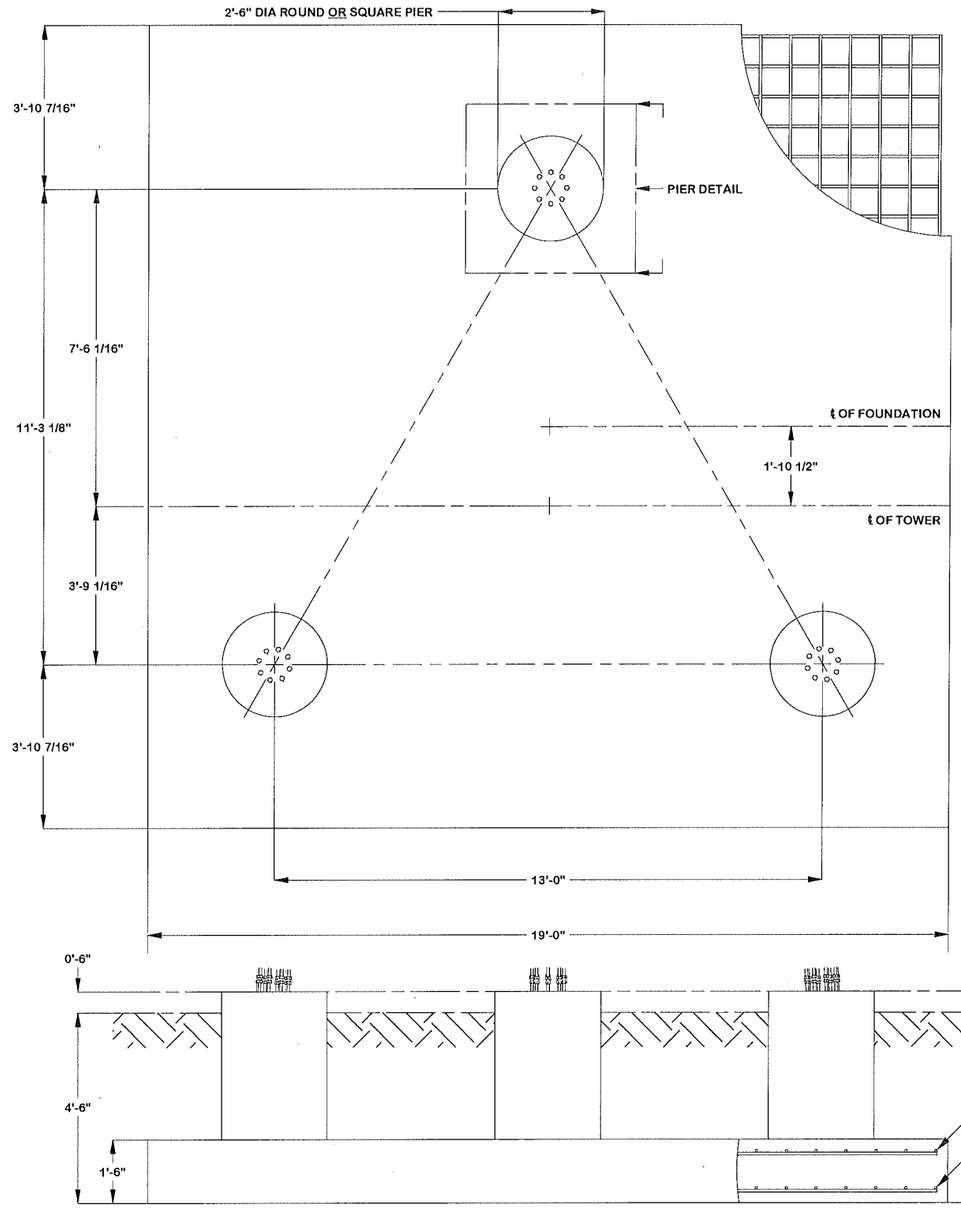
STRUCTURE APPROVAL
SKK 10/3/2017

FOUNDATION APPROVAL

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

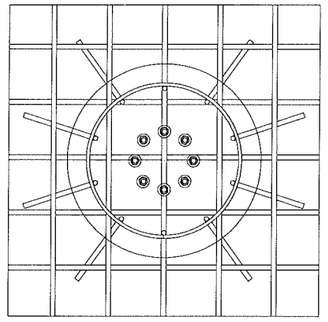
ENG. FILE NO.
385823

DWG. NO.
276601T



INSTALL BASE SECTION WITH 1 1/2" MAXIMUM CLEARANCE ABOVE CONCRETE

CONCRETE VOLUME	22.0 CU.YD
CONCRETE STRENGTH	4500 PSI @ 28 DAYS

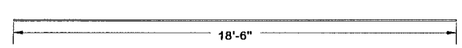


PIER DETAIL (TOP VIEW)

ATTENTION CONTRACTOR INSTALLING ANCHOR BOLT!
3/4" DIA. ANCHOR BOLTS REQUIRED.
VERIFY THE PART NUMBER AND SIZES FOR ALL COMPONENTS ON THIS PAGE.
IF THERE ARE ANY DISCREPANCIES, PLEASE NOTIFIY VALMONT/PIROD, INC PRIOR TO INSTALLATION.

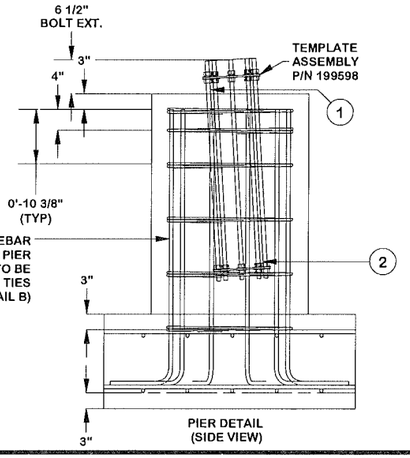
TEMPLATE INSTALLATION NOTES:
1. THE PROVIDED TEMPLATE ASSEMBLY MUST BE USED TO ENSURE ACCURATE ANCHOR BOLT LOCATION & INSTALLATION ANGLE (BASE LEG REFERENCE ANGLE3.31°.)
2. USING THE TEMPLATE ASSEMBLY, EACH ANCHOR BOLT GROUP MUST BE LOCATED IN FOUNDATION AS SHOWN IN THE PLAN VIEW (+/- 3"). FAILURE TO USE THE FULLY ASSEMBLED ANCHOR BOLT TEMPLATE WILL CAUSE MISS-LOCATION OF ANCHOR BOLT GROUPS. INCORRECTLY LOCATED ANCHOR BOLT GROUPS WILL CAUSE DIFFICULTY DURING TOWER CONSTRUCTION. IN MORE SEVERE CASES, THIS CAN MAKE IT IMPOSSIBLE TO ERECT TOWER.
3. TEMPLATE ASSEMBLY MUST BE LEVEL +/- 1°.
4. INSTALLED TEMPLATE CLEARANCE: 2" MIN - 4" MAX
5. MUST USE TEMPLATE ASSEMBLY# 199598

Ⓐ



#6 HORIZONTAL REBAR - SPACED EQUALLY ≈ 8 1/2" ℄ TO ℄ (TYP)

CIRCULAR TIE NOTES:
PLACE CIRCULAR TIES SO LAPS ON ADJACENT TIES ARE 180 DEGREES APART. PLACE ONE TIE AT TOP OF REBAR GRID AND ONE TIE AT TOP OF PIER. EQUALLY SPACE TIES ALONG THE PIER, WITH ONE BAR PLACED 4" DOWN FROM THE TOP TIE. 6 TIES PER PIER (SEE DETAIL C)



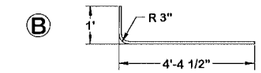
PIER DETAIL
(SIDE VIEW)

REBAR/ANCHOR STEEL TABLE				
ITEM	QTY	PART DESCRIPTION	UNIT WT.	NET WT.
1	24	3/4" DIA. x 42" LONG ANCHOR BOLT - 137890	5.27	126.45
2	3	EMBEDMENT PLATE - 227213	6.59	19.78
A	108	HORIZONTAL REBAR (#6 REBAR)	27.85	3007.79
B	30	VERTICAL REBAR (#6 REBAR)	7.86	235.68
C	18	CIRCULAR TIE (#4 REBAR)	5.07	91.24
D	36	STANDEE (#4 REBAR)	3.60	129.51
			APPROX TOTAL WT #	3610.46

REBAR NOTES: ALL REINFORCING BARS MUST CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS.

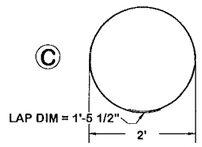
FOUNDATION NOTES:
1. SOIL AS PER REPORT BY S.W. COLE ENGINEERING 9/8/17 REPORT # 17-09065
2. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 (2008) BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
4. ALL FILL SHOULD BE PLACED IN LOOSE LEVEL LIFTS OF NO MORE THAN 12" THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGANIC AND FROZEN MATERIALS OR ANY OTHER DELETERIOUS MATERIALS. COMPACT FILL TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557.
5. BENDING, STRAIGHTENING OR REALIGNING (HOT OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
6. CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
7. FOUNDATION IS TO BEAR ON COMPETENT BEDROCK AT APPROXIMATELY 4.5' BELOW GRADE. THE BEARING SURFACE IS TO BE FREE OF ANY LOOSE MATERIAL & SUBSEQUENTLY INSPECTED BY A QUALIFIED ON-SITE GEOTECHNICAL ENGINEER.
8. THE FOUNDATION MUST BEAR ENTIRELY ON COMPETENT BEDROCK. THE FOUNDATION IS NOT TO BEAR ON ANY COMBINATION OF SOIL AND BEDROCK AS THIS MAY CAUSE EXCESSIVE DIFFERENTIAL SETTLEMENT.
9. PNEUMATIC HAMMERS, RIPPERS, AND/OR BLASTING MAY BE REQUIRED TO REMOVE MATERIAL FROM THE EXCAVATION.

Ⓑ



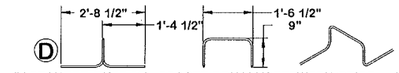
#6 VERTICAL REBAR - TO BE SPACED EQUALLY AROUND PIER AND INSIDE CIRCULAR TIES
APPROX UNBENT LENGTH = 5'-2 5/8"

Ⓒ

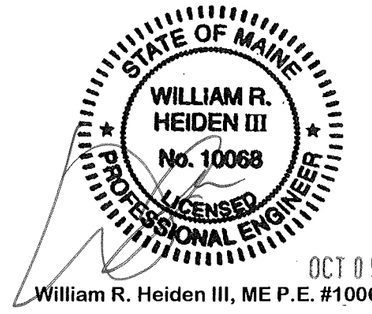


#4 CIRCULAR TIE - SPACED EQUALLY ≈ 10 3/8" (TYP)
APPROX UNBENT LENGTH = 7'-6 7/8"

Ⓓ



#4 STANDEE (TYPE 26) - SPACED EQUALLY BETWEEN GRIDS = 4' (TYP)
APPROX UNBENT LENGTH = 5'-4 1/2"



OCT 0 5 2017
William R. Heiden III, ME P.E. #10068

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
REVISION HISTORY				

SITE
AUBURN GOFF HILL, ME
EAST COAST COMMUNICATIONS
V 13 X 180'

DESCRIPTION
SHALLOW MAT WITH RAISED PIERS
TOWER FOUNDATION #1

STRUCTURE APPROVAL		FOUNDATION APPROVAL	
SKK	10/3/2017	M_S	10/5/2017

valmont STRUCTURES
1-877-467-4763 Plymouth, IN
1-800-547-2151 Salem, OR

ENG. FILE NO. 385823
DWG. NO. 276601F
PAGE 1 OF 1

GOFF HILL COMMUNICATIONS TOWER

GOFF HILL
AUBURN, ME

CLIENT:

LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY
COMMUNICATIONS EQUIPEMENT LLC
552 MINOT AVENUE, AUBURN,
MAINE 04210

TOWER CONSULTANT:

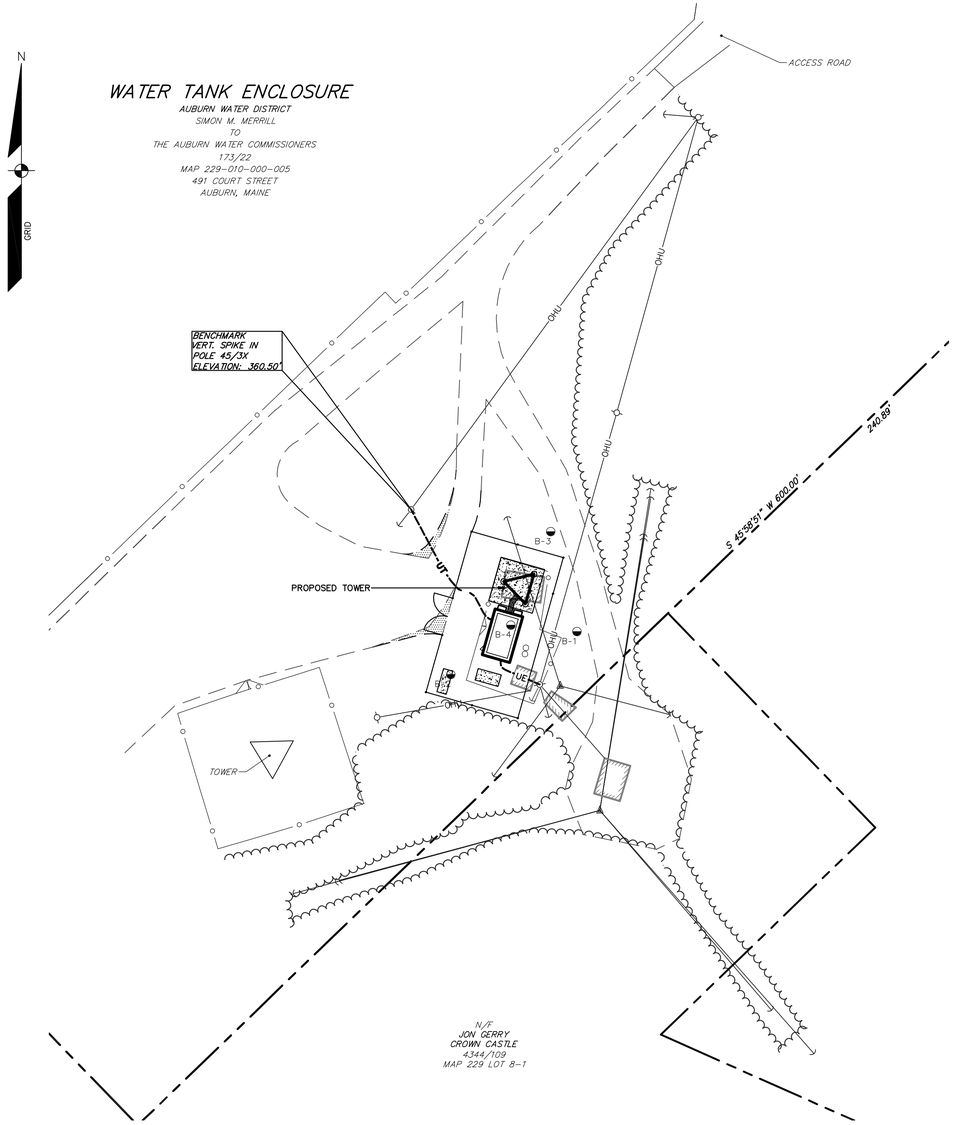
DIRIGO WIRELESS
349 MIDDLE ROAD
FALMOUTH, ME 04105
TEL.: (207) 513-1110 FAX: (207) 839-3489

ENGINEER/SURVEYOR/ LANDSCAPE ARCHITECT:

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM

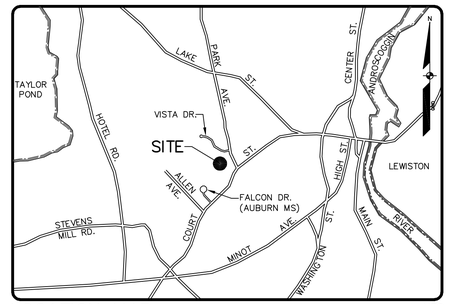
75 John Roberts Rd.
Suite 1A
South Portland, ME 04106
Tel. 207-200-2100

250 Goddard Rd.
Suite B
Lewiston, ME 04240
Tel. 207-783-5656



SCALE: 1" = 30'

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT.

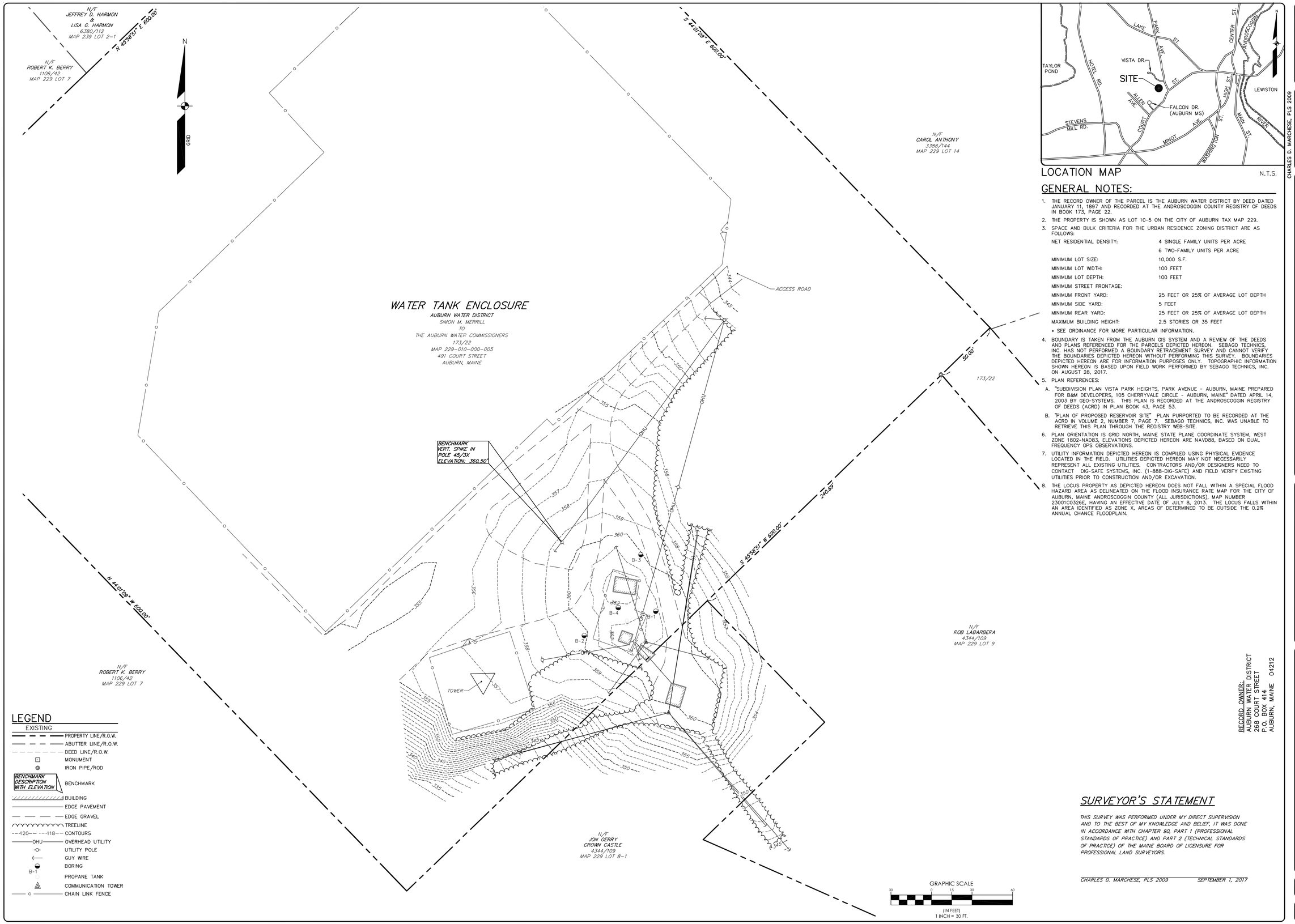


LOCATION MAP NTS

INDEX OF PLANS

REVISED THROUGH 10-18-17

17258C.dwg, TAB: C



LEGEND

EXISTING

- PROPERTY LINE/R.O.W.
- ABUTTER LINE/R.O.W.
- DEED LINE/R.O.W.
- MONUMENT
- IRON PIPE/ROD
- BENCHMARK (BENCHMARK DESCRIPTION WITH ELEVATION)
- BUILDING
- EDGE PAVEMENT
- EDGE GRAVEL
- TREELINE
- CONTOURS
- OVERHEAD UTILITY
- UTILITY POLE
- GUY WIRE
- BORING (B-1)
- PROPANE TANK
- COMMUNICATION TOWER
- CHAIN LINK FENCE

LOCATION MAP

N.T.S.

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE AUBURN WATER DISTRICT BY DEED DATED JANUARY 11, 1897 AND RECORDED AT THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS IN BOOK 173, PAGE 22.
2. THE PROPERTY IS SHOWN AS LOT 10-5 ON THE CITY OF AUBURN TAX MAP 229.
3. SPACE AND BULK CRITERIA FOR THE URBAN RESIDENCE ZONING DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	4 SINGLE FAMILY UNITS PER ACRE
	6 TWO-FAMILY UNITS PER ACRE
MINIMUM LOT SIZE:	10,000 S.F.
MINIMUM LOT WIDTH:	100 FEET
MINIMUM LOT DEPTH:	100 FEET
MINIMUM STREET FRONTAGE:	
MINIMUM FRONT YARD:	25 FEET OR 25% OF AVERAGE LOT DEPTH
MINIMUM SIDE YARD:	5 FEET
MINIMUM REAR YARD:	25 FEET OR 25% OF AVERAGE LOT DEPTH
MAXIMUM BUILDING HEIGHT:	2.5 STORIES OR 35 FEET

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

4. BOUNDARY IS TAKEN FROM THE AUBURN GIS SYSTEM AND A REVIEW OF THE DEEDS AND PLANS REFERENCED FOR THE PARCELS DEPICTED HEREON. SEBAGO TECHNICS, INC. HAS NOT PERFORMED A BOUNDARY RETRACEMENT SURVEY AND CANNOT VERIFY THE BOUNDARIES DEPICTED HEREON WITHOUT PERFORMING THIS SURVEY. BOUNDARIES DEPICTED HEREON ARE FOR INFORMATION PURPOSES ONLY. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. ON AUGUST 28, 2017.
5. PLAN REFERENCES:
   A. "SUBDIVISION PLAN VISTA PARK HEIGHTS, PARK AVENUE - AUBURN, MAINE PREPARED FOR B&M DEVELOPERS, 105 CHERRYVALE CIRCLE - AUBURN, MAINE" DATED APRIL 14, 2003 BY GEO-SYSTEMS. THIS PLAN IS RECORDED AT THE ANDROSCOGGIN REGISTRY OF DEEDS (ACRD) IN PLAN BOOK 43, PAGE 53.
   B. "PLAN OF PROPOSED RESERVOIR SITE" PLAN PURPORTED TO BE RECORDED AT THE ACRD IN VOLUME 2, NUMBER 7, PAGE 7. SEBAGO TECHNICS, INC. WAS UNABLE TO RETRIEVE THIS PLAN THROUGH THE REGISTRY WEB-SITE.
6. PLAN ORIENTATION IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GPS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON IS COMPILED USING PHYSICAL EVIDENCE LOCATED IN THE FIELD. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, MAINE ANDROSCOGGIN COUNTY (ALL JURISDICTIONS), MAP NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

RECORD OWNER:
AUBURN WATER DISTRICT
268 COURT STREET
P.O. BOX 414
AUBURN, MAINE 04212

SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

CHARLES D. MARCHESE, PLS 2009 — SEPTEMBER 1, 2017

CHARLES D. MARCHESE, PLS 2009

PROGRESS PRINT

NOT FOR CONSTRUCTION

DRAWN	CHECKED
CDM	JIB

REV.:	BY:	DATE:	STATUS:
C	CDM	10-18-17	ISSUED FOR REVIEW
B	CDM	9-8-17	ADDED SPACE & BULK ZONING REQUIREMENTS - LABELED BORINGS
A	CDM	9-1-17	ISSUED TO CLIENT FOR REVIEW

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656

EXISTING CONDITIONS
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPEMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	1" = 30'

SHEET 2 OF 8

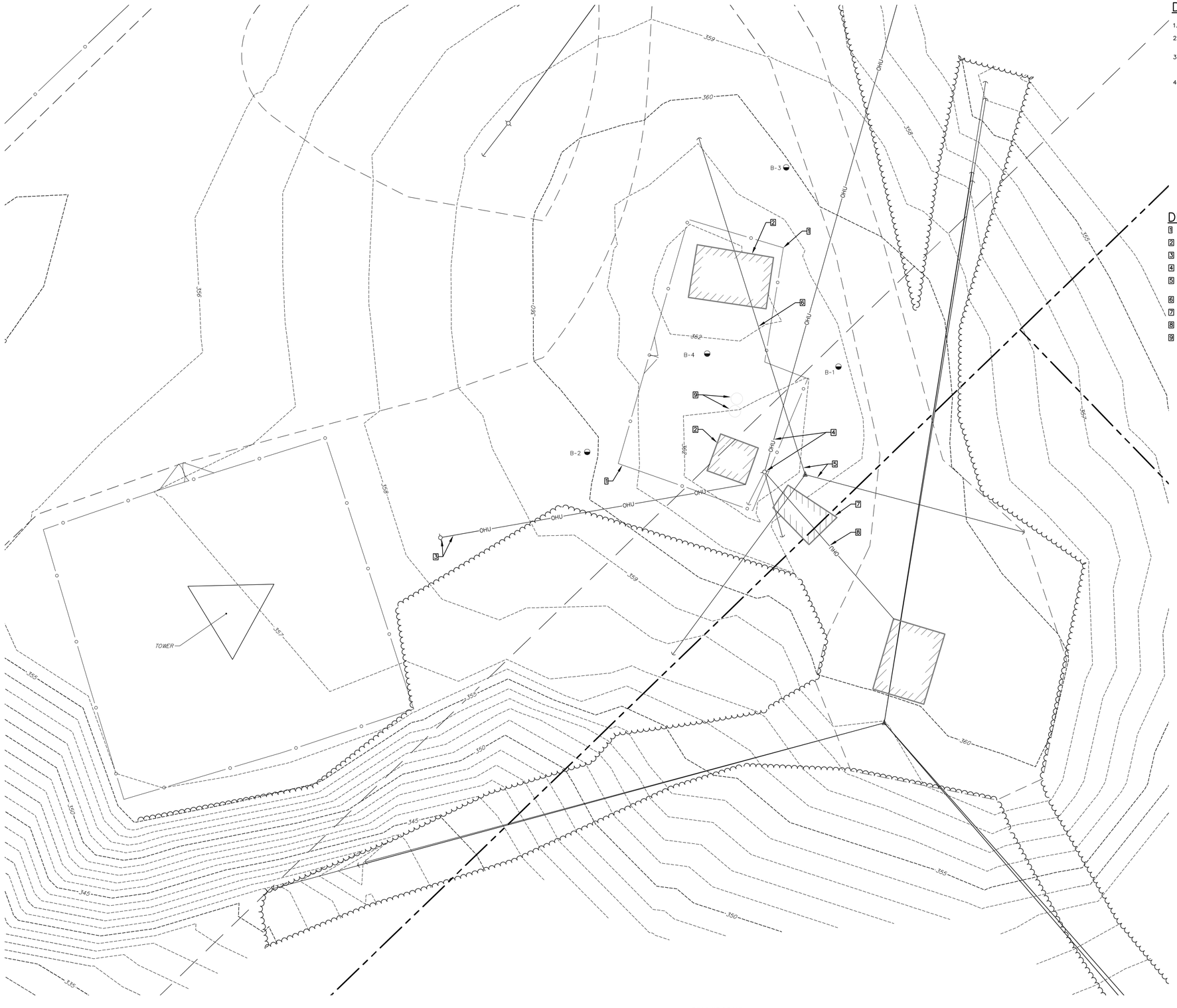
17258EC.dwg, TAB:17258EC

DEMOLITION NOTES:

1. CONTRACTOR SHALL NOTIFY DIGSAFE FOR UTILITY LOCATIONS PRIOR TO EXCAVATION.
2. EXISTING MATERIALS TO BE SALVAGED AND RE - USED SHALL BE STORED AND PROTECTED DURING CONSTRUCTION.
3. EXISTING HOUSE, DECK AND MISCELLANEOUS ITEMS SHALL BE REMOVED AFTER ELECTRICAL AND NATURAL GAS SERVICES HAVE BEEN REMOVED. REMOVE ALL FOUNDATIONS AS PART OF THIS DEMOLITION.
4. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE TO ALL APPLICABLE CODES AND REGULATIONS.

DEMOLITION KEY:

1. REMOVE EXISTING FENCING
2. REMOVE EXISTING BUILDING
3. REMOVE EXISTING POLE, WIRES & COMMUNICATION WIRING
4. EXISTING POLE, BUYS & WIRING TO REMAIN. POLE TO BE REPLACED BY CMP AT THEIR DISCRETION
5. EXISTING ANTENNA TO REMAIN UNTIL PROPOSED TOWER IS IN OPERATION. REMOVE ANTENNA AFTER ACTIVATION OF NEW TOWER
6. ANTENNA GUY WIRE TO BE TYPICALLY RELOCATED DURING CONSTRUCTION OF TOWER
7. TEMPORARY STRUCTURE FOR ANTENNA OPERATIONS TO REMAIN UNTIL TOWER IS IN OPERATION
8. EXISTING UTILITY LINES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
9. REMOVE EXISTING PROPANE TANKS



LEGEND

EXISTING	PROPOSED
	PROPERTY LINE/R.O.W.
	ABUTTER LINE/R.O.W.
	EASEMENT
	BUILDING
	EDGE PAVEMENT
	EDGE CONCRETE
	EDGE GRAVEL
	DEMOLITION KEY

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 INCH = 10 FT.

ROBERT A. McSORLEY PE 8588

STATE OF MAINE · ROBERT A. McSORLEY · 8588 · REGISTERED PROFESSIONAL ENGINEER · 10-18-17

DESIGNED	CHECKED
RAM	RAM

REV.	BY:	DATE:	STATUS:
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME. 04106 Tel: 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME. 04240 Tel: 207-783-9826

DEMOLITION PLAN
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1 /ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

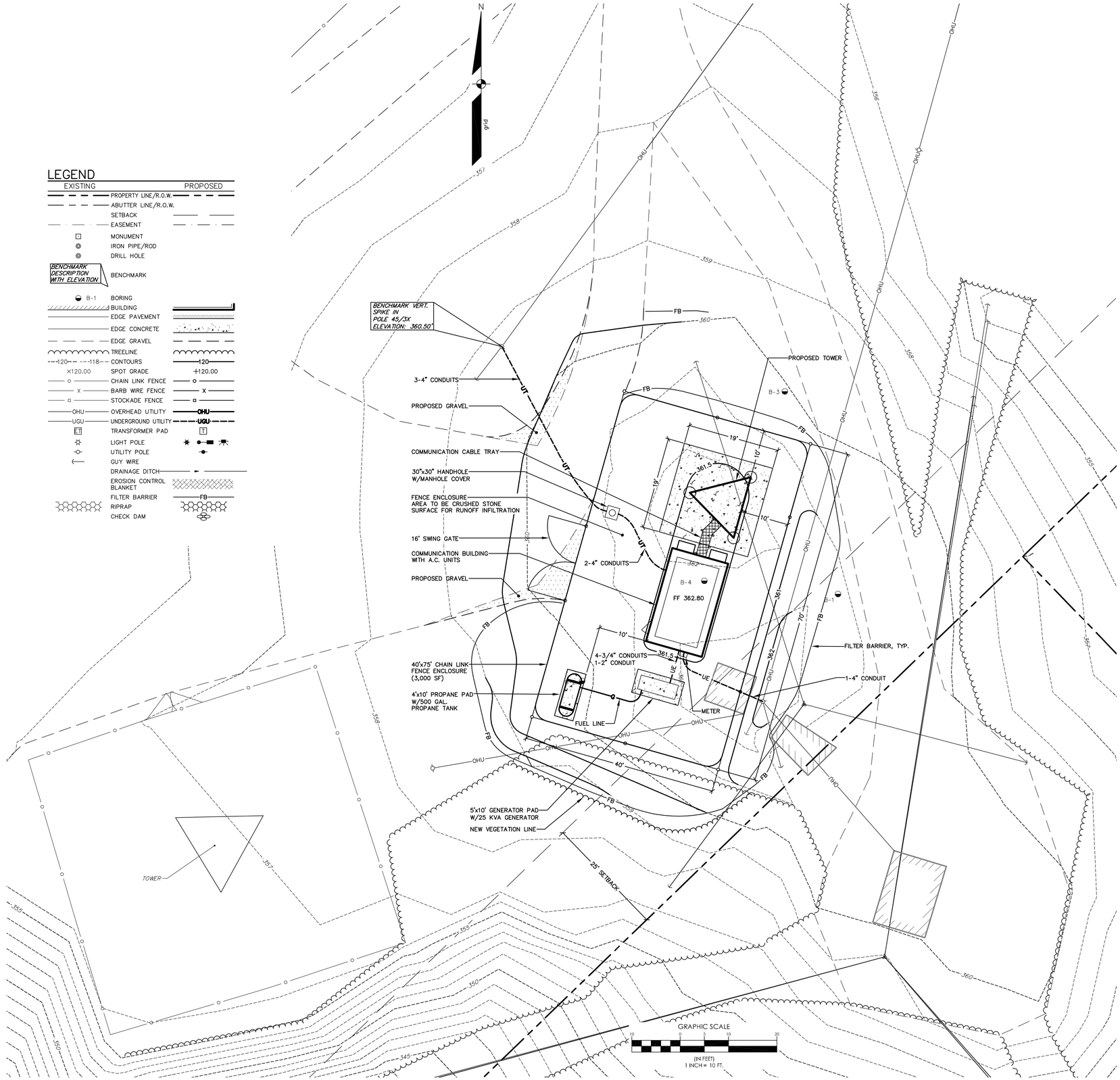
PROJECT NO.	SCALE
17258	1" = 10'

SHEET 3 OF 8

17258demo.dwg, TAB:DEMO

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	SETBACK	
	EASEMENT	
⊡	MONUMENT	
◎	IRON PIPE/ROD	
◎	DRILL HOLE	
BENCHMARK DESCRIPTION WITH ELEVATION	BENCHMARK	
B-1	BORING	
	BUILDING	
	EDGE PAVEMENT	
	EDGE CONCRETE	
	EDGE GRAVEL	
	TREELINE	
--120-- --118--	CONTOURS	120
×120.00	SPOT GRADE	+120.00
○ X □	CHAIN LINK FENCE	○ X □
X	BARB WIRE FENCE	X
□	STOCKADE FENCE	□
OHU	OVERHEAD UTILITY	OHU
UGU	UNDERGROUND UTILITY	UGU
E	TRANSFORMER PAD	T
☼	LIGHT POLE	✱ ● ■
○	UTILITY POLE	●
⟵	GUY WIRE	
	DRAINAGE DITCH	
	EROSION CONTROL BLANKET	
	FILTER BARRIER	FB
	RIPRAP	
	CHECK DAM	



CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

11. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.

12. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

13. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

14. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

15. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE TOWN AS APPLICABLE.

17. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING. THE APPLICANT RESERVES THE RIGHT TO PERFORM NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIMIT AS SHOWN. TREE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.

18. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

19. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

20. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

21. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF SEBAGO TECHNICS, INC.

22. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.

23. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

24. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

25. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

26. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

27. ALL SUBSURFACE UTILITY LINES SHOWN HEREON ARE BASED SOLELY ON THE FIELD LOCATION OF VISIBLE STRUCTURES, SMH'S, CB'S, HYDRANTS, ETC.. IN CONJUNCTION WITH DESIGN AND OR AS-BUILT PLANS SUPPLIED TO SEBAGO TECHNICS INC. BY OTHERS. PRIOR TO ANY CONSTRUCTION, EXCAVATION, TEST BORINGS, DRILLING, ETC.. DIG SAFE MUST BE NOTIFIED AND A SITE IDENTIFICATION NUMBER ALONG WITH A SAFE TO DIG DATE OBTAINED. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION, DEPTH AND MATERIAL OF ALL SUBSURFACE UTILITY LINES SHOWN HEREON AND ANY AND ALL OTHERS LOCATED ON SITE WITHIN THE CONSTRUCTION AREA.

APPROVAL STATEMENTS

APPLICABLE CITY ORDINANCES:

SEC. 60-837. - PURPOSE.
THE CITY RECOGNIZES THAT WIRELESS COMMUNICATIONS FACILITIES PROVIDE A VALUABLE AND NECESSARY SERVICE TO THE PUBLIC. THE CITY ALSO RECOGNIZES THAT THE PROLIFERATION OF THESE FACILITIES COULD RESULT IN UNINTENDED INTERFERENCE WITH PUBLIC SAFETY COMMUNICATIONS AND THE POTENTIAL FOR AVOIDABLE VISUAL IMPACTS IN THE COMMUNITY. THESE REGULATIONS ARE INTENDED TO BALANCE THE INTERESTS OF THE TELECOMMUNICATION PROVIDERS, THEIR CUSTOMERS, PUBLIC SAFETY AGENCIES AND THE PUBLIC BY:
(1) ESTABLISHING CLEAR STANDARDS AND SUBMISSION REQUIREMENTS FOR WIRELESS COMMUNICATION FACILITIES (WCFS).
(2) CREATING A TWO-TIER PROCESS IN WHICH MINOR WCFS CAN BE REVIEWED AND APPROVED BY A STAFF REVIEW COMMITTEE WHILE ALL OTHER WCFS ARE SUBJECT TO PLANNING BOARD REVIEW AND APPROVAL.
(3) ENCOURAGING THE COLLOCATION OF PROPOSED WCFS ON EXISTING FACILITIES AND REQUIRING NEW TOWERS TO BE DESIGNED TO PERMIT COLLOCATION.
(4) ENCOURAGING THE USE OF FINISHES AND COLORS TO MINIMIZE VISUAL IMPACT BY MATCHING OR BLENDING THE APPEARANCE OF THE NEW FACILITIES WITH THE SURROUNDING NATURAL OR BUILT ENVIRONMENT.
(5) ENSURING THAT NEW WCFS, EITHER BY THEMSELVES OR IN COMBINATION WITH OTHER EXISTING ON- OR OFF-SITE WCFS, WILL NOT INTERFERE WITH ANY PUBLIC SAFETY COMMUNICATIONS.

SEC. 60-838. - APPLICABILITY.
THIS SECTION SHALL APPLY TO ALL WCFS EXCEPT THE FOLLOWING:
(1) WCFS FOR MUNICIPAL USE.
(2) PARABOLIC ANTENNAS LESS THAN SEVEN FEET IN DIAMETER, THAT ARE AN ACCESSORY USE OF THE PROPERTY.
(3) MAINTENANCE, REPAIR OR RECONSTRUCTION OF A WCF AND RELATED EQUIPMENT, PROVIDED THAT IT DOES NOT CONSTITUTE AN EXPANSION OF A WCF AND THERE IS NO CHANGE IN THE HEIGHT OR ANY OTHER DIMENSION OF THE FACILITY.
(4) AN ANTENNA THAT IS AN ACCESSORY USE TO A RESIDENTIAL DWELLING UNIT.

PURSUANT TO CHAPTER 60 SEC. 60-838 (1), THIS PLAN IS APPROVED BY THE AUBURN PLANNING STAFF.

APPROVED: _____ DATE: _____
ERIC COUSENS
DEPUTY DIRECTOR OF ECONOMIC AND COMMUNITY DEVELOPMENT.

ROBERT A. McSORLEY PE 8588
STATE OF MAINE — REGISTERED PROFESSIONAL ENGINEER — ROBERT A. McSORLEY 8588 — 10-26-17

DESIGNED	CHECKED
RAM	RAM

REV.	BY:	DATE:	STATUS
B	RAM	10-26-17	MINOR REVISIONS
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME. 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME. 04240 Tel. 207-755-5555

SITE, GRADING & UTILITIES PLAN
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	1" = 10'

SHEET 4 OF 8

172585.dwg, TAB:S

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION . AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD . OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN 14-DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100' OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS.
CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES
THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 15%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).
TYPES OF MULCH:
HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).
EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.
EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1. OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4. OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.
PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 85%-90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

HAY BALE CHECK DAMS: WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

6. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEPT OR WASHED TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS.

7. DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.

8. TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

9. PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDBED PREPARATION:
A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

APPLICATION OF SEED:
A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (MDEP SEED MIX 2 IS DISPLAYED)

SEED TYPE	APPLICATION RATE
CREEPING RED FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TALL FESCUE	0.46 LBS/1,000 S.F. (20 LBS/ACRE)
TOTAL:	0.97 LBS/1,000 S.F. (42 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:
FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN. WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION:

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.
A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C.) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D.) OF THIS STANDARD.
B. STABILIZE THE SLOPE WITH SOD -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
D. STABILIZE THE SLOPE WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C.) OF THIS STANDARD.
B. STABILIZE THE SOIL WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

CONSTRUCTION SCHEDULE
SITE IMPROVEMENTS WILL MOST LIKELY BEGIN IN WINTER 2017/2018 DEPENDING UPON FINAL PROJECT APPROVAL. THE FOLLOWING SCHEDULE IS ANTICIPATED FOR THE CONSTRUCTION OF TYPICAL EQUIPMENT PAD, ICE BRIDGE AND UTILITY SERVICE ADDITIONS TO THE TOWER COMPOUND AREA:

SCHEDULE

1.	ESTIMATED CONSTRUCTION TIME:	2 MONTH
2.	EROSION CONTROL MEASURES PLACED.	WEEK 1
3.	SITE EXCAVATION/TRENCHING.	WEEK 1
4.	TOWER COMPOUND CONSTRUCTION	WEEK 2-4
5.	CONSTRUCTION OF FOUNDATION.	WEEK 4
6.	TOWER CONSTRUCTION	WEEK 4-6
7.	SHELTER INSTALLATION	WEEK 4-6
8.	UTILITY IMPROVEMENTS, CABINET PLACEMENT AND ANTENNA/ICE BRIDGE INSTALLATION.	WEEKS 3 - 4
9.	MULCH SPREAD FOR WINTER EROSION CONTROL.	SEPTEMBER 15 OF CONSTRUCTION YEAR
10.	START FINAL SEEDING ON PREPARED AREAS WHERE REQUIRED. (DURING GROWING SEASON.)	WEEK 6-8
11.	REMOVAL OF EROSION CONTROL DEVICES.	UPON FINAL PROJECT COMPLETION

* DATES ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE ENGINEER, DEPENDING ON CONSTRUCTION PROGRESS.

INSPECTIONS/MONITORING:

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, OR AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

WINTER EROSION CONTROL MEASURES:

THE WINTER CONSTRUCTION PERIOD IS FROM OCTOBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD.
WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.
THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS.
CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.
ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS.
DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.
PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1.000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.
MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION.
AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING.
AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1.000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH THEN COVER IS SUFFICIENT.
AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

WINTER EROSION CONTROL MEASURES (CONT.):

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS.
MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.
MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.
EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8%.
EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.
DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES.
IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4' OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH.
IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

7. TRENCH DEWATERING AND TEMPORARY STREAM DIVERSION

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION WILL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

8. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION.
FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/ OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
INSTALL A STONE LINING IN THE DITCH --THE APPLICANT WILL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.
STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM III OF THIS CONDITION OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS CONDITION.
STABILIZE THE SLOPE WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE APPLICANT WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

3. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE APPLICANT WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.
STABILIZE THE SOIL WITH SOD -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

ROBERT A. McSORLEY PE 8588

STATE OF MAINE
ROBERT A. McSORLEY
No. 8588
LICENSED
PROFESSIONAL ENGINEER
10-18-17

DESIGNED	CHECKED
RAM	RAM

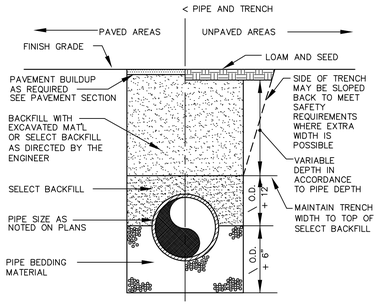
REV:	BY:	DATE:	STATUS:
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656

EROSION CONTROL NOTES & DETAILS
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPEMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	NTS

17258D.dwg, TAB:D1



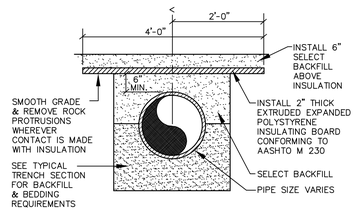
TYPICAL TRENCH SECTION

NOT TO SCALE

TRENCH BACKFILL SCHEDULE		
PIPE TYPE	PIPE BEDDING MATERIAL	SELECT BACKFILL
CORRUGATED METAL DUCTILE IRON REINFORCED CONCRETE	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC-SDR 35 HDPE	MDOT 703.22 TYPE C 3/4 " CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
PERFORATED PVC-SDR 35 HDPE	MDOT 703.22 TYPE C 3/4 " CRUSHED STONE	MDOT 703.22 TYPE C 3/4 " CRUSHED STONE

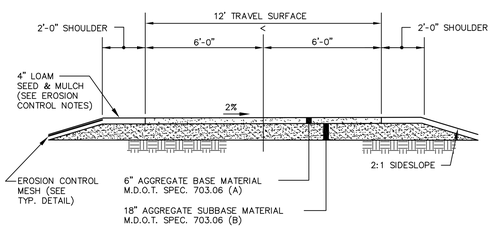
NOTES:

1. ALL BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL MEET ALL STATE AND O.S.H.A. SAFETY STANDARDS.



PIPE INSULATION DETAIL

NOT TO SCALE

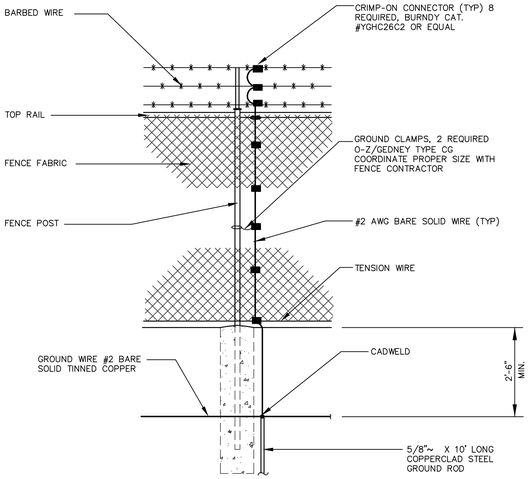


NOTES:

1. CONTRACTOR MAY SUBSTITUTE RECLAIMED ASPHALT FOR SURFACE COURSE WITH APPROVAL BY THE SITE ENGINEER

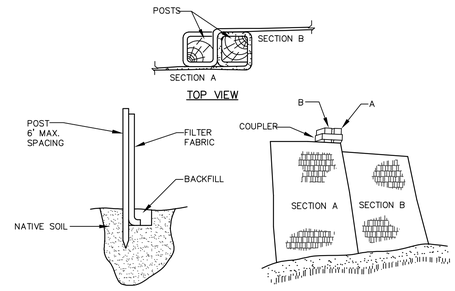
TYPICAL GRAVEL DRIVEWAY SECTION

NOT TO SCALE



FENCE GROUNDING

NOT TO SCALE

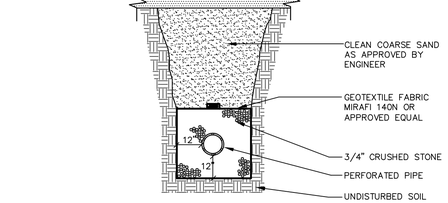


INSTALLATION:

1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
5. JOIN SECTION AS SHOWN ABOVE.
6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

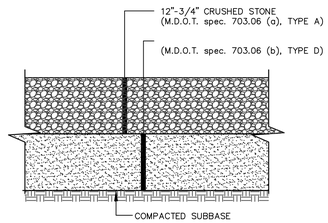
FILTER BARRIER

NOT TO SCALE



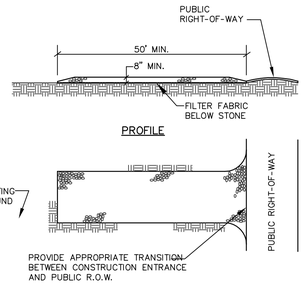
TYP. PERFORATED UNDERDRAIN TRENCH SECTION

NOT TO SCALE



TYP. COMPOUND SECTION

NOT TO SCALE



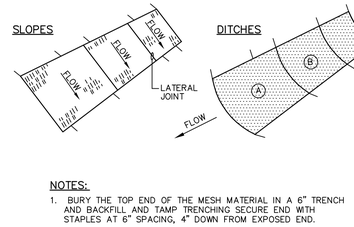
PLAN

NOTES:

1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTES:

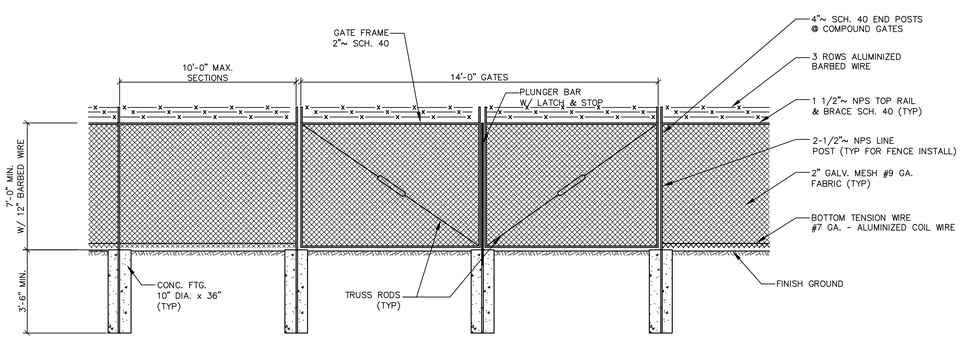
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF # 11 WIRE 6" LONG AND 1-1/2" WIDE.

SLOPES	EROSION CONTROL BLANKET
3:1 OR SHALLOWER	NORTH AMERICAN GREEN DS 150
3:1 TO 2:1	NORTH AMERICAN GREEN SC250
STEEPER THAN 2:1	SEE RIPRAP SIDE SLOPE DETAIL

OR APPROVED EQUAL

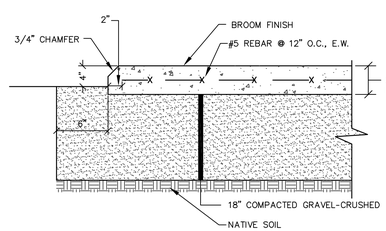
EROSION CONTROL BLANKET

NOT TO SCALE



TYPICAL FENCE SECTION

NOT TO SCALE



NOTES:

1. USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
2. FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENTS, SEE EQUIPMENT VENDOR DRAWINGS.
3. IF BEDROCK IS ENCOUNTERED, ROCK SHALL BE REMOVED TO PROVIDE AT LEAST A 6" BED OF CRUSHED GRAVEL.
4. GRAVEL FILL SHALL BE COMPACTED TO AT LEAST 95% DENSITY.
5. SUBGRADE AND FILL SHALL CONSIST OF CLEAN SOIL NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.

NOTE:

1. PROVIDE CONTRACTION CONTROL JOINTS EVERY 6' IN EACH DIRECTION

TYPICAL CONCRETE SLAB

NOT TO SCALE

ROBERT A. McSORLEY PE 8588

STATE OF MAINE — ROBERT A. McSORLEY — 8588 — REGISTERED PROFESSIONAL ENGINEER — 10-26-17

DESIGNED	CHECKED
RAM	RAM

REV.	BY:	DATE:	STATUS:
B	RAM	10-26-17	MINOR REVISIONS
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
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250 Goddard Rd. Suite B, Lewiston, ME 04240 Tel: 207-795-3535

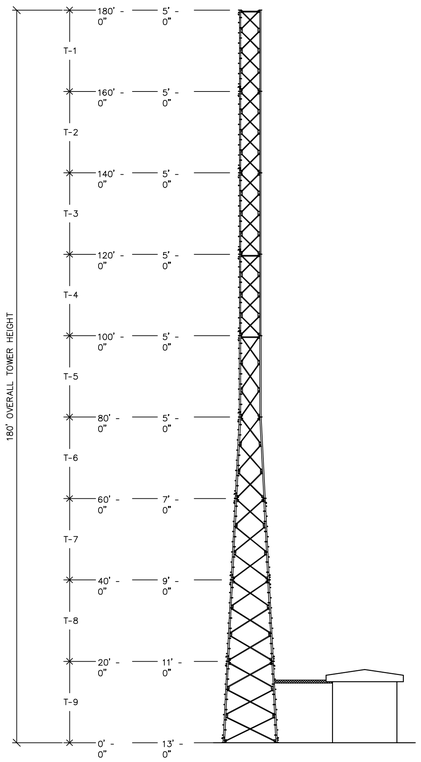
DETAILS
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPEMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	NTS

SHEET 6 OF 8

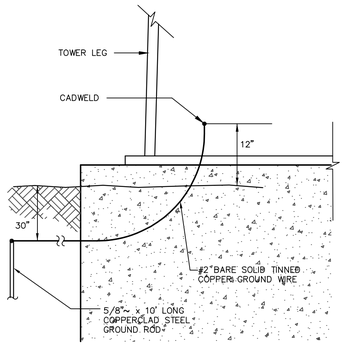
172580.dwg, TAB: D2

DESIGNED APPURTENANCE LOADING	
TYPE	ELEVATION
(1) 21' LRE WITH 7'-6" LIGHTNING ROD (ARM=11.5')	180.0000'
(1) 24" STANDOFF	180.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	180.0000'
(1) 882-70	180.0000'
(1) WHIP (3" X 20')	180.0000'
(3) 6' PIVOT SIDE ARM (50" PIPE)	150.0000'
(1) COL53-160	150.0000'
(2) WHIP (3" X 20')	150.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	120.0000'
(1) COL53-160	120.0000'
(1) PAR6-59 W/ RADOME ()(0 DEG AZIMUTH)	120.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	100.0000'
(1) COL53-160	100.0000'
(1) PAR6-59 W/ RADOME ()(0 DEG AZIMUTH)	100.0000'
(1) 201-7N	80.0000'
(1) 3' PIVOT SIDE ARM (50" PIPE)	80.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	80.0000'
(1) COL53-160	80.0000'
(1) P3F-52-NXA W/RADOME ()(0 DEG AZIMUTH)	80.0000'
(1) 2" X 96" SCH. 40	50.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	50.0000'
(1) COL53-160	50.0000'
(1) PAR6-59 W/ RADOME ()(120 DEG AZIMUTH)	50.0000'
(1) 24" STANDOFF	40.0000'
(1) COMPROD 295-70 YAGI	40.0000'
(1) P3F-52-NXA W/RADOME ()(0 DEG AZIMUTH)	40.0000'
(1) 24" STANDOFF	30.0000'
(1) COMPROD 295-70 YAGI	30.0000'
(1) 6' PIVOT SIDE ARM (50" PIPE)	20.0000'
(1) ANT150F2	20.0000'

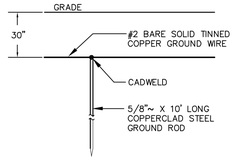


TOWER ELEVATION
NOT TO SCALE

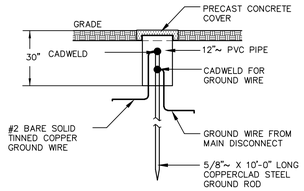
NOTE:
TOWER ELEVATION SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO TOWER MANUFACTURER DRAWINGS AND OWNER INFORMATION FOR EXISTING ANTENNA AND EQUIPMENT LOCATIONS AND LOADINGS, AND SHALL REFER TO STRUCTURAL RECOMMENDATIONS PROVIDED BY OTHERS FOR MOUNTING INSTALLATION FOR PROPOSED WIRELESS ANTENNA AND ASSOCIATED EQUIPMENT.



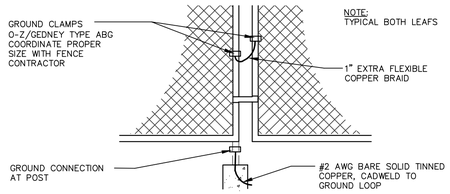
TOWER LEG GROUNDING
NOT TO SCALE



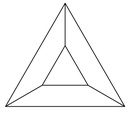
GROUNDING ROD
NOT TO SCALE



GROUND ROD INSPECTION WELL
NOT TO SCALE

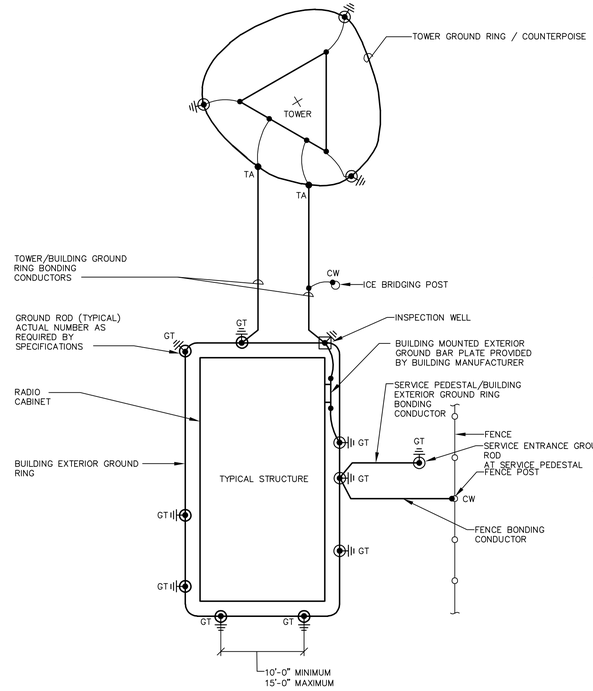


GATE GROUNDING
NOT TO SCALE



ANTENNA PLAN VIEW
NOT TO SCALE

1. TOWER IS LOCATED IN ANDROSCOGGIN COUNTY, MAINE.
2. TOWER IS DESIGNED FOR EXPOSURE B TO THE TIA-222-G STANDARD.
3. TOWER IS DESIGNED FOR A 92 MPH BASIC WIND IN ACCORDANCE WITH THE TIA-222-G STANDARD.
4. TOWER IS ALSO DESIGNED FOR A 40 MPH BASIC WIND WITH 1.00 INCH ICE. ICE IS CONSIDERED TO INCREASE IN THICKNESS WITH HEIGHT.
5. DEFLECTIONS ARE UPON A 60 MPH WIND.
6. TOWER STRUCTURE CLASS II.
7. TOPOGRAPHIC CATEGORY 1 WITH CREST HEIGHT OF 0.00 FT.
8. TOWER RATING: 88.1%



TYPICAL GROUNDING SCHEMATIC LAYOUT
NOT TO SCALE

GROUNDING LEGEND

SYMBOL	DESCRIPTION
CW	CAD WELD
TA	CABLE TO CABLE "T" MOUNT
GT	CABLE TO GROUND ROD "T" MOUNT
	GROUND ROD W/CABLE CONNECTION
	# 2 SOLID TINNED COPPER WIRE 2', BELOW FINISH GRADE
	CAD WELD TYPE CONNECTION
	GROUND BAR COUNTERPOISE INSPECTION PIT

GROUNDING NOTES

1. ALL DETAILS SHOWN FOR SCHEMATIC ONLY. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. CONTRACTOR SHALL VERIFY WITH NORTHEAST WIRELESS THE SPECIFIC GROUNDING SYSTEM APPROPRIATE FOR THE SITE BASED ON BEDROCK DEPTH AND SOIL CONDITIONS. THE CONTRACTOR SHALL USE ONE OF THESE SYSTEMS:
   A. COPPER GROUND ROD SYSTEM.
   B. COPPER PLATE GROUND SYSTEM.
   C. CHEMICAL GROUNDING ROD SYSTEM.
3. ALL EXTERIOR GROUNDING AND TOP OF GROUNDING RODS SHALL BE BURIED TO A MINIMUM DEPTH OF 4.5 FEET BELOW FINISH GRADE, WITH THE EXCEPTION OF THE ELECTRIC METER GROUNDING ROD.
4. ALL GROUNDING CONDUCTORS EXTENDING UNDERGROUND SHALL BE #2 SOLID TINNED COPPER.
5. GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS. SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
6. NOTIFY NORTHEAST WIRELESS IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
7. CHEMICAL GROUNDS SHALL BE XIT, CHEM-ROD OR APPROVED EQUAL WHEN REQUIRED.
8. ALL UNDERGROUND GROUNDING CONNECTORS ARE TO BE CADWELDED, ABOVE GRADE GROUNDING SHALL BE EITHER CADWELDED OR MECHANICAL AS SPECIFIED ON DRAWINGS.
9. ALL GROUNDS ARE TO BE INSTALLED A MINIMUM OF 2'-0" FROM SHELTER

ROBERT A. McSORLEY PE 8588

STATE OF MAINE · ROBERT A. McSORLEY · 8588 · REGISTERED PROFESSIONAL ENGINEER · 10-18-17

DESIGNED	CHECKED
RAM	RAM

REV.	BY:	DATE:	STATUS:
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
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Tel: 207-200-2100
250 Goddard Rd. Suite B
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DETAILS
OF:
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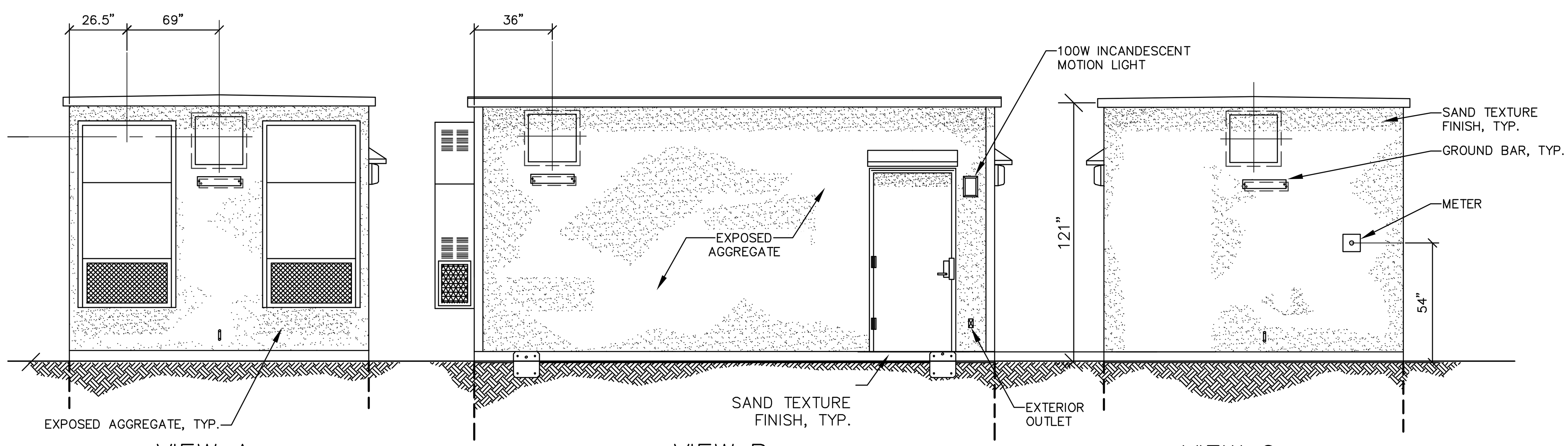
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	NTS

SHEET 7 OF 8

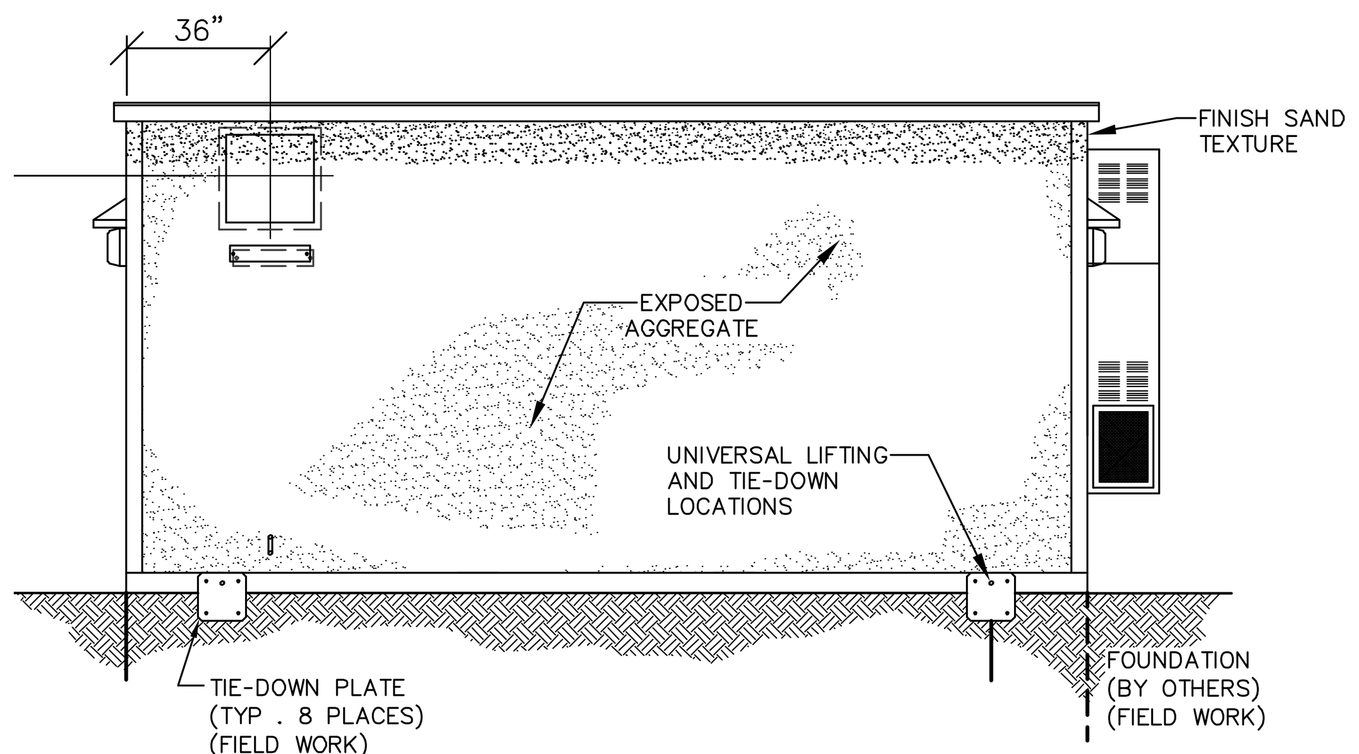
1725380.dwg, TAB: D3



VIEW A
SCALE: NTS

VIEW B
SCALE: NTS

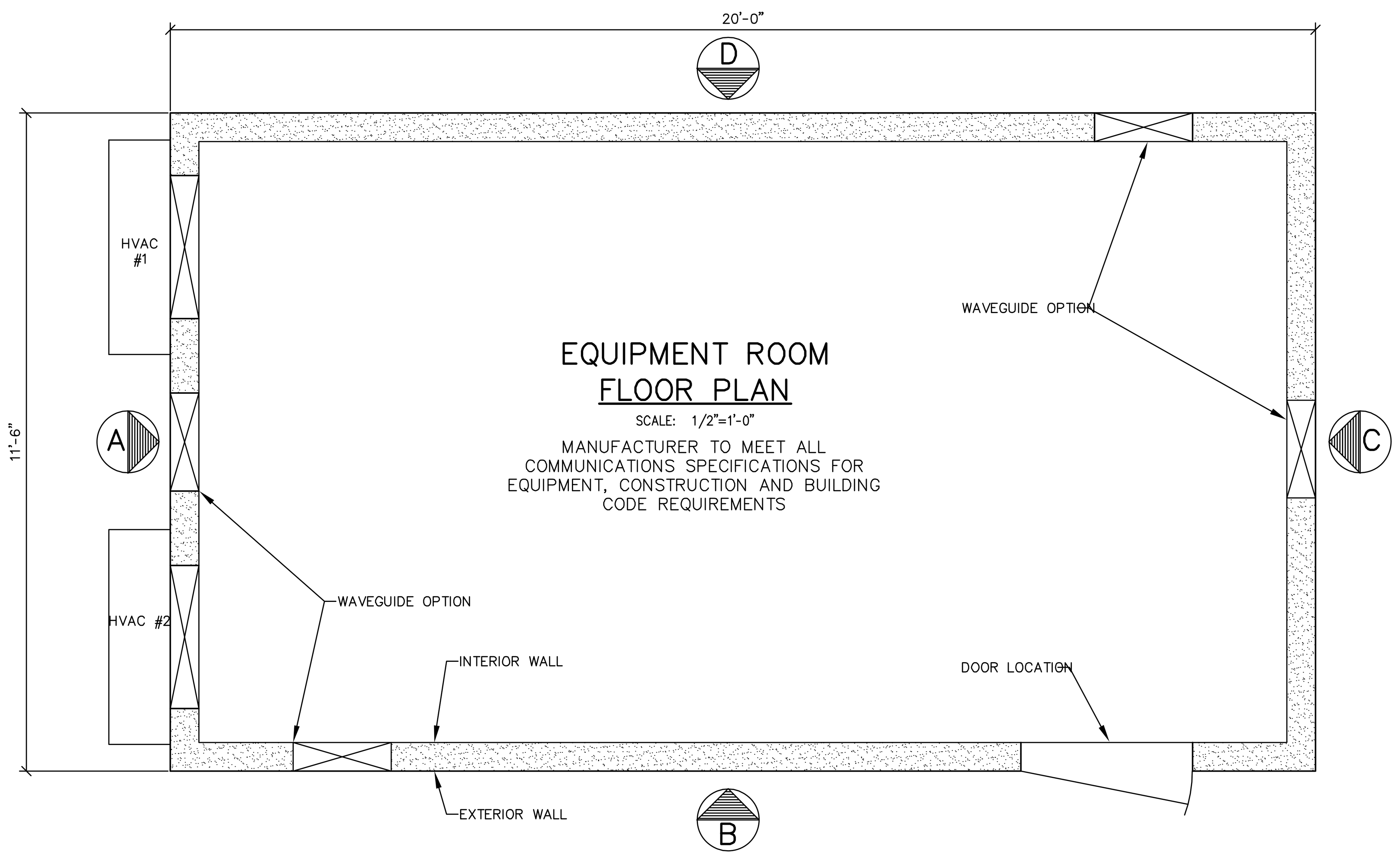
VIEW C
SCALE: NTS



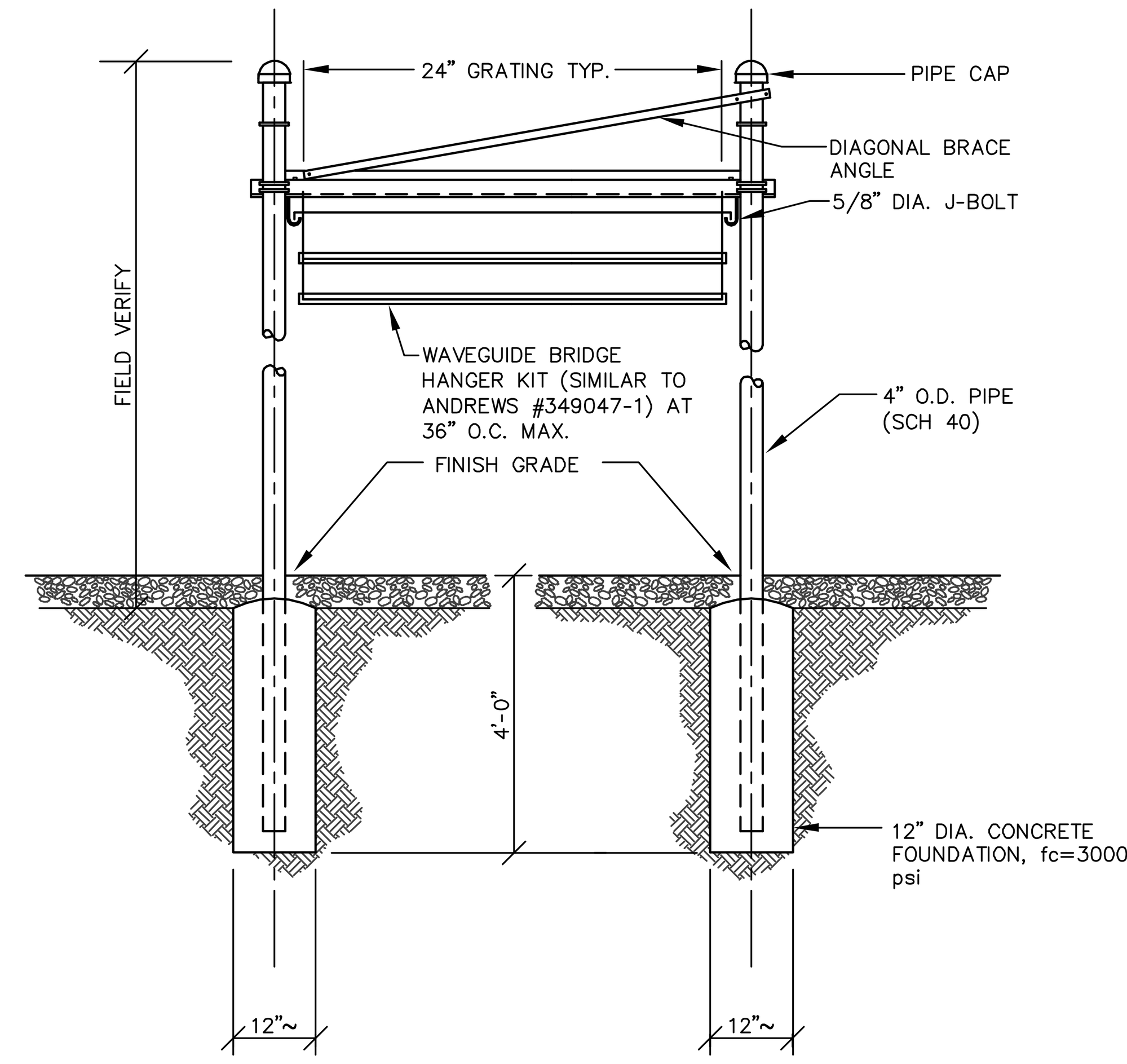
VIEW D
SCALE: NTS

NOTES:

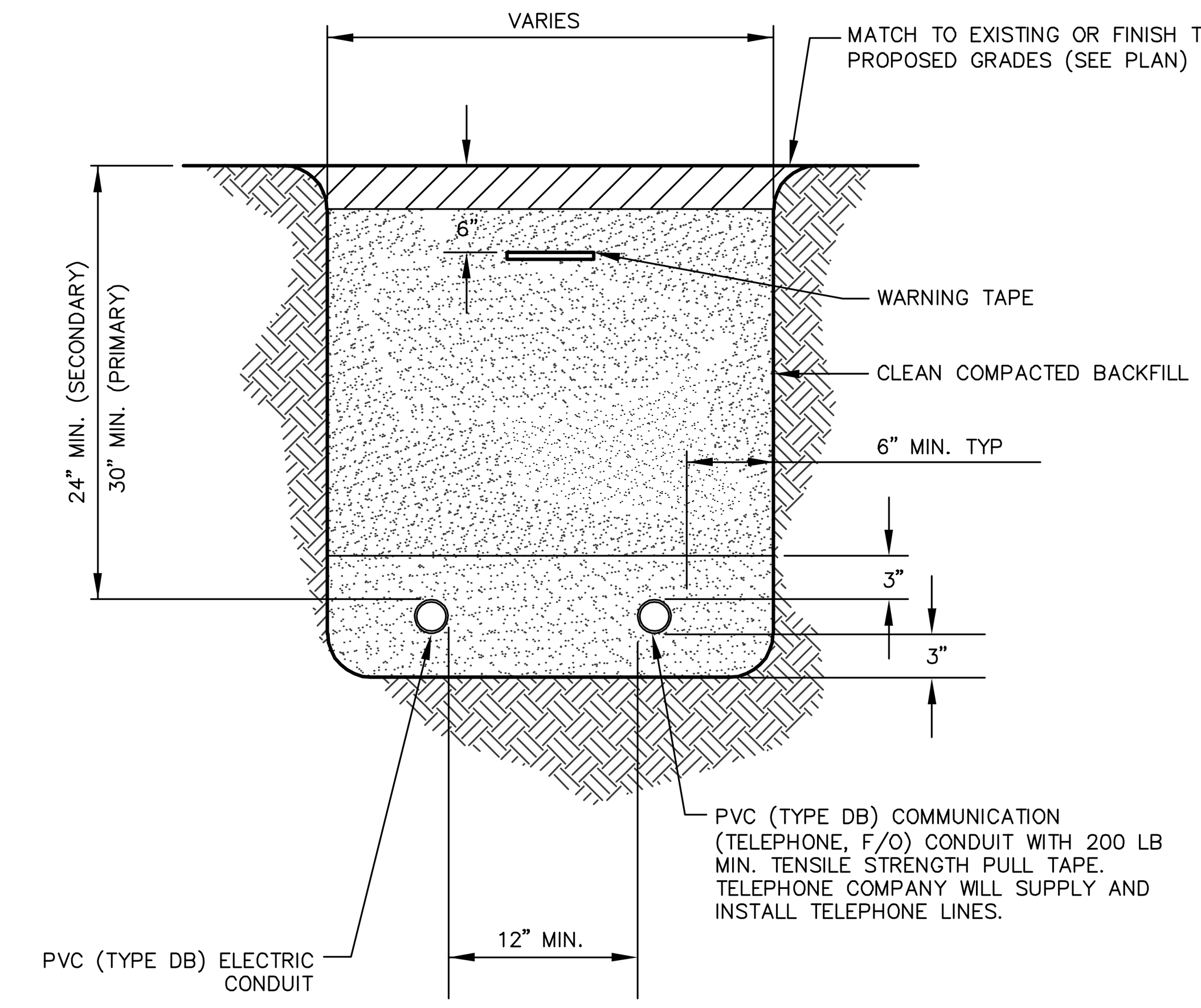
1. FOR IDENTIFICATION/DESCRIPTION OF DOOR (HARDWARE, SIZE, ETC.), AIR CONDITIONING UNITS, AND OTHER EQUIPMENT; REFER TO BILL OF MATERIAL ITEMS WHICH CORRESPOND TO ITEM NUMBER CALL OUTS ON THIS DRAWING.
2. UNLESS OTHERWISE NOTED, PENETRATION TOLERANCE IS; 1 IN ANY DIRECTION.
3. UNLESS OTHERWISE NOTED, ANGULAR PENETRATION TOLERANCE IS -20°+0 (25° TO 45°).
4. FOUNDATION DESIGN TO BE FOR MANUFACTURER'S SPECIFICATION.



PREFABRICATAED EQUIPMENT BUILDING
NOT TO SCALE



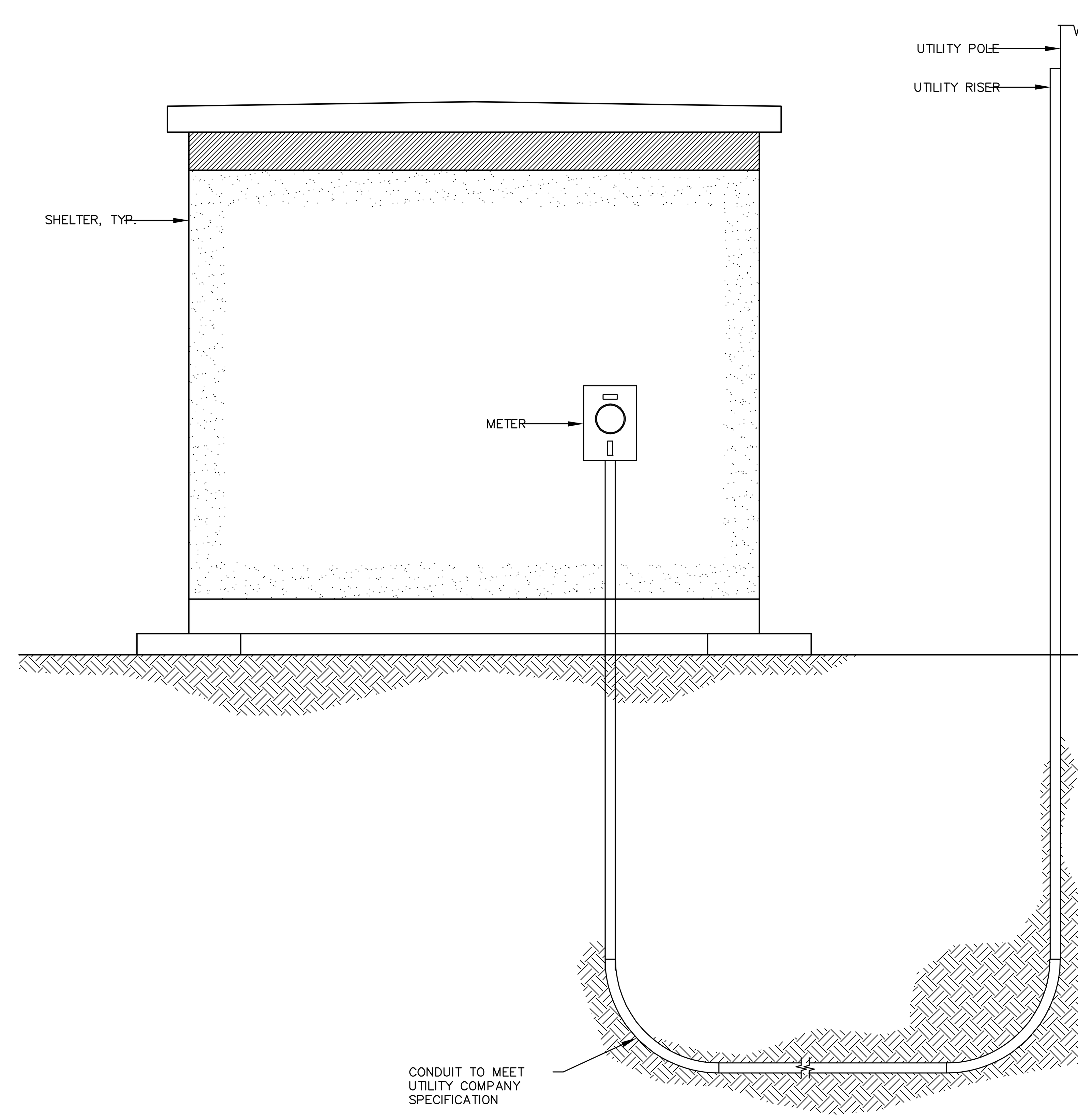
ICE BRIDGE DETAIL
NOT TO SCALE



UNDERGROUND CONDUITS	
DESIGNATION	**SIZE, IN.**
ELECTRIC	2 ½"
COMMUNICATIONS	4"

NOTES:
1. COORDINATE ALL CONDUIT REQUIREMENTS WITH LOCAL UTILITY COMPANIES.

UTILITY TRENCH
NOT TO SCALE



SERVICE DROP/METER INSTALLATION
NOT TO SCALE

ROBERT A. McSORLEY PE 8588

STATE OF MAINE ROBERT A. McSORLEY No. 8588 LICENSED PROFESSIONAL ENGINEER 10-18-17

DESIGNED	CHECKED
RAM	RAM

REV:	BY:	DATE:	STATUS:
A	RAM	10-18-17	ISSUED FOR REVIEW

SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 1A South Portland, ME 04106 Tel. 207-200-2100
250 Goddard Rd. Suite B Lewiston, ME 04240 Tel. 207-783-5656

DETAILS
OF:
GOFF HILL COMMUNICATIONS TOWER
GOFF HILL
AUBURN, ME
FOR:
LEWISTON AUBURN 911 COMMITTEE
L-A-9-1-1/ANDROSCOGGIN COUNTY COMMUNICATIONS EQUIPEMENT LLC
552 MINOT AVENUE, AUBURN, MAINE 04210

PROJECT NO.	SCALE
17258	NTS

17258D.dwg, TAB:D4